

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. U-01196-D
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A
2. NAME OF OPERATOR Coastal Oil & Gas Corporation			7. UNIT AGREEMENT NAME Natural Buttes Unit
3. ADDRESS OF OPERATOR P.O. Box 749 Denver, CO 80201-0749 (303) 573-4476			8. FARM OR LEASE NAME NBU
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1808' FEL & 1981' FSL (NW/SE) Section 9, T10S, R22E At proposed prod. zone Same as above.			9. WELL NO. 205
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* Approximately 24 miles southeast of Ouray, Utah			10. FIELD AND POOL, OR WILDCAT Natural Buttes
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1808'	16. NO. OF ACRES IN LEASE 320	17. NO. OF ACRES ASSIGNED TO THIS WELL 80	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 9, T10S, R22E
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1550'	19. PROPOSED DEPTH 7175'	20. ROTARY OR CABLE TOOLS Rotary	12. COUNTY OR PARISH Uintah
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5213' GR			13. STATE Utah
22. APPROX. DATE WORK WILL START* October 1, 1992			

23. PROPOSED CASING AND CEMENTING PROGRAM

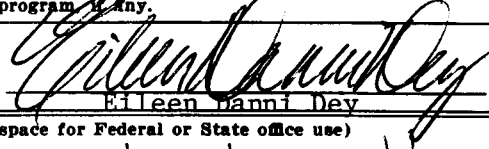
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" K-55	24.0#	0 - 250'	180 sx circ to surface *
7-7/8"	5-1/2" K-55	17.0#	0 - 7175'	1000 sx circ to surface *

* Cement volumes may change due to hole size.
Calculate from Caliper log.

EIGHT-POINT RESOURCE PROTECTION PLAN ATTACHED.

I hereby certify that Coastal Oil & Gas Corporation is authorized by the proper Lease Interest Owners to conduct lease operations associated with this Application for Permit to Drill the NBU #205, Federal Lease U-01196-D. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Coastal Oil & Gas Corporation Nation-wide Bond #CO-0018, who will be responsible for compliance with all the terms and conditions of that portion of the lease associated with this Application.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

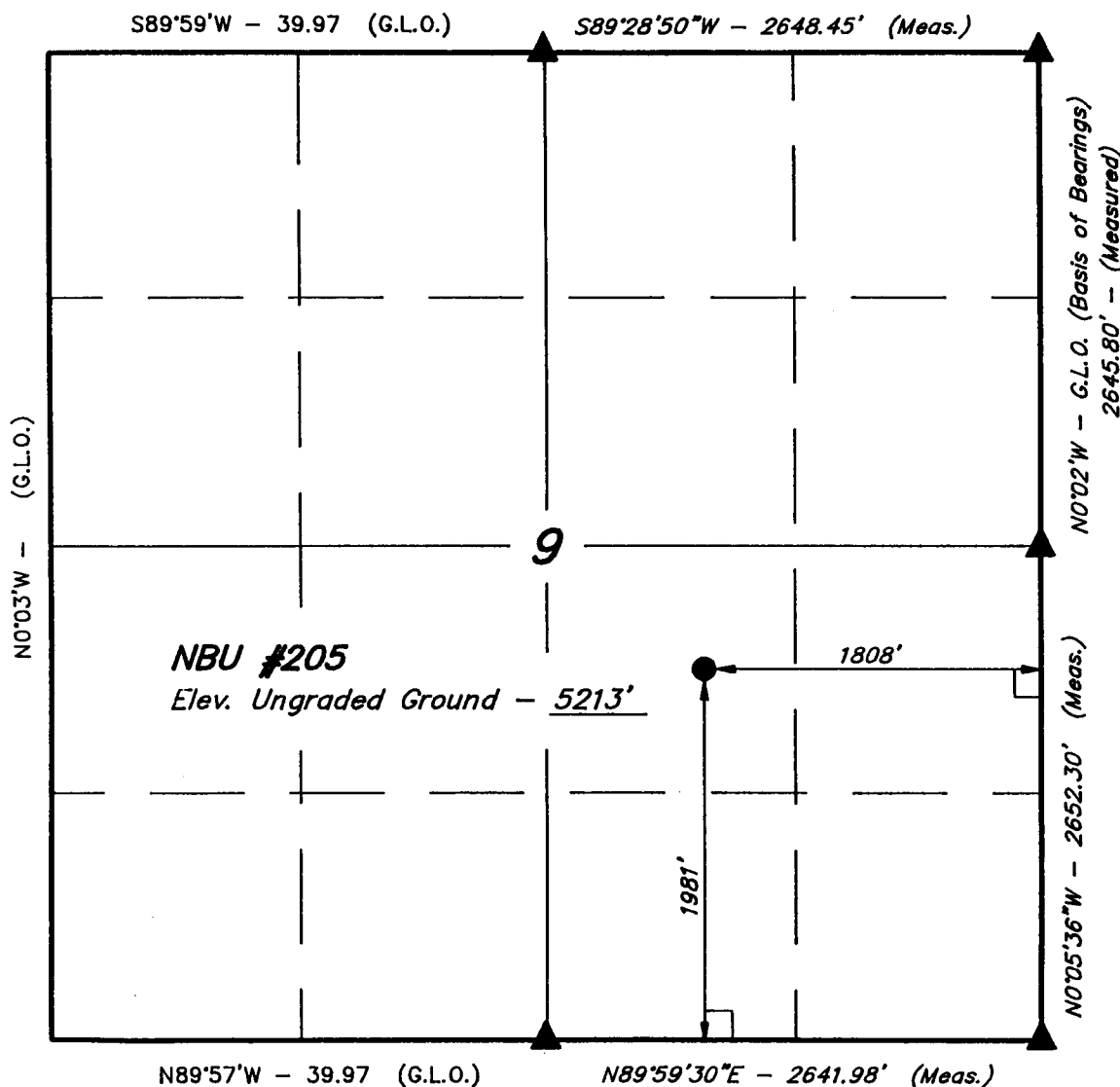
24.  SIGNED <u>Eileen Danni Day</u> TITLE <u>Regulatory Analyst</u> DATE <u>8/26/92</u>	
(This space for Federal or State office use)	
PERMIT NO. <u>43-047-302344</u>	APPROVAL DATE <u>8/26/92</u>
APPROVED BY <u>[Signature]</u> TITLE <u>[Signature]</u>	DATE <u>8/26/92</u>
CONDITIONS OF APPROVAL, IF ANY:	BY <u>[Signature]</u> DATE <u>8/26/92</u>
	WELL SPACING: <u>260' x 260'</u>

*See Instructions On Reverse Side

T10S, R22E, S.L.B.&M.

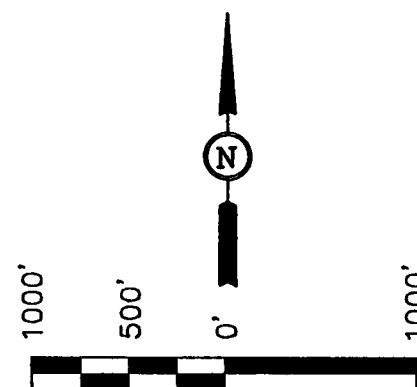
COASTAL OIL & GAS CORP.

Well location, NBU #205, located as shown in the NW 1/4 SE 1/4 of Section 9, T10S, R22E, S.L.B.&M. Uintah County, Utah.



BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN. NE QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.



SCALE

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

ROBERT L. KAY
REGISTERED LAND SURVEYOR
REGISTRATION NO. 5709
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING

85 SOUTH 200 EAST - VERNAL, UTAH 84078

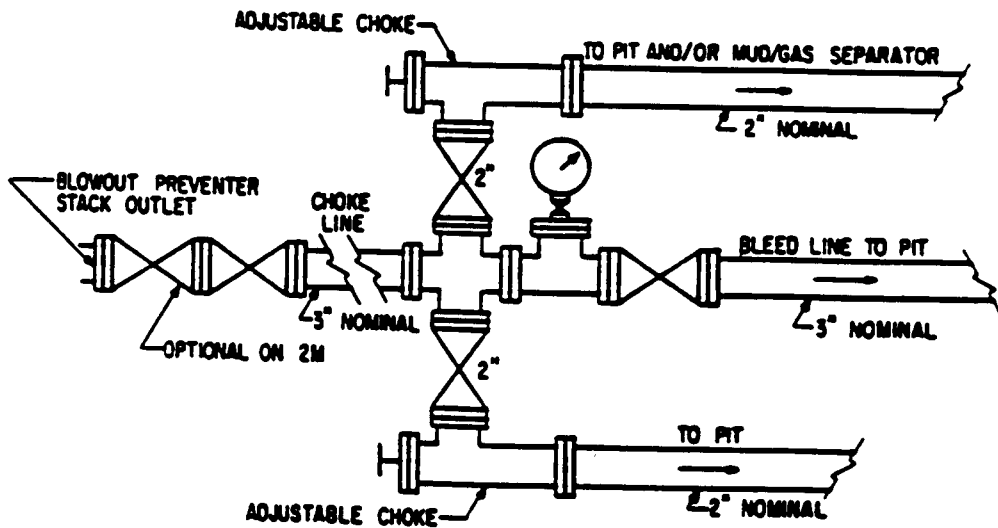
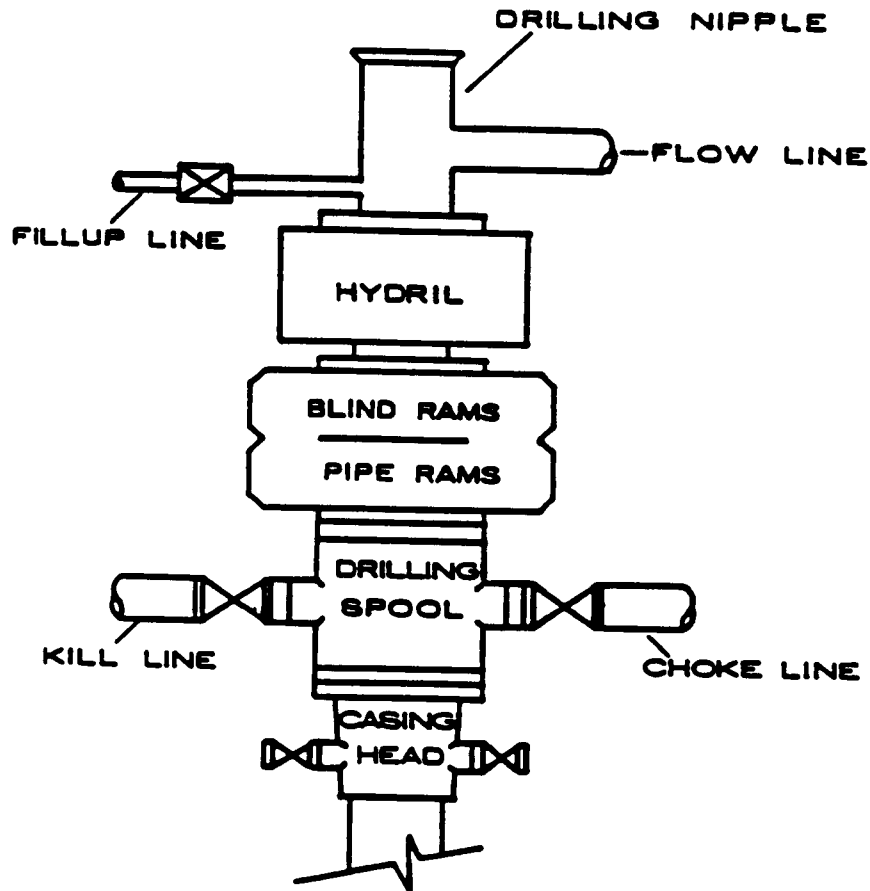
(801) 789-1017

LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED. (3" B.L.M. Alum. Caps)

SCALE 1" = 1000'	DATE SURVEYED: 7-22-92	DATE DRAWN: 7-25-92
PARTY D.A. C.Y. R.E.H.	REFERENCES G.L.O. PLAT	
WEATHER HOT	FILE COASTAL OIL & GAS CORP.	

BOP STACK



COASTAL OIL & GAS CORPORATION
Lease #U-01196-D, NBU #205
NW/SE, Section 9, T10S, R22E
Uintah County, Utah

Drilling Prognosis

1. Estimated Tops of Important Geologic Markers:

Uinta	Surface	Wasatch	4300'
		Total Depth	7175'

2. Estimated Depths of Anticipated Water, Oil, Gas or Mineral Formations:

Wasatch	4300'	Gas (Primary Objective)
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If any shallow water zones are encountered, they will be adequately protected and reported; none anticipated. All potentially productive hydrocarbon zones will be cemented off.

3. Pressure Control Equipment: (Schematic Attached)

A. Type: 10" Double Gate Hydraulic.

The Blow-Out Preventer will be equipped as follows:

1. One (1) blind ram (above).
2. One (1) pipe ram (below).
3. Kill line (2-inch minimum).
4. One (1) kill line valve (2-inch minimum).
5. One (1) choke line valve.
6. Two (2) adjustable chokes.
7. Upper kelly cock valve with handle available.
8. Safety valve & subs to fit all drill strings in use.
9. 2-inch (minimum) choke line.
10. Pressure gauge on choke manifold.

B. Pressure Rating: 2,000 psi

C. Testing Procedure:

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by a test plug) or to 70% of the internal yield strength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be maintained for a period of at least ten (10) minutes or until the requirements of the test are met, whichever is longer.

3. Pressure Control Equipment:

C. Testing Procedure: Continued

At a minimum, the above pressure test will be performed:

1. When the BOP is initially installed.
2. Whenever any seal subject to test pressure is broken.
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition to the above, the pipe and blind rams will be activated each trip, but not more than once each day.

All BOP drills and tests will be recorded in the IADC driller's log.

D. Choke Manifold Equipment.

All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees, and will be anchored to prevent whip and vibration.

E. Accumulator:

The accumulator will have sufficient capacity to close all BOP's and retain 200 psi above precharge. Nitrogen bottles which meet the manufacturer's specifications will be used as the backup to the required independent power source. The accumulator precharge pressure test will be conducted prior to connecting the closing unit to the BOP stack and at least once every six (6) months thereafter. The accumulator pressure will be corrected if the measured precharge pressure is found to be above or below the maximum or minimum limits specified in Onshore Operating Order #2.

F. Special Drilling Operations:

In addition to the equipment already specified in Items A through E, above, the following equipment will be in place and operational during air/gas drilling:

1. Properly lubricated and maintained rotating head.
2. Spark arresters on engines or water cooled exhaust.
3. Blooie line discharge 100 feet from wellbore and securely anchored.

3. Pressure Control Equipment:

F. Special Drilling Operations: Continued

4. Coastal requests a variance to the straight line run on the blooie line. Blooie line will have two targeted Tees.
5. Deduster equipment (not required for aerated water system).
6. All cuttings and circulating medium(s) shall be directed into a reserve or blooie pit.
7. Float valve above bit.
8. Automatic igniter or continuous pilot light on the blooie line (not required for aerated water system).
9. Compressors located in the opposite direction from the blooie line and at a minimum of 100 feet from the wellbore.
10. Mud circulating equipment, water, and mud materials (does not have to be pre-mixed) sufficient to maintain the capacity of the hole and circulating tanks or pits.

G. Miscellaneous Information:

The Blow-Out Preventer and related pressure control equipment will be installed, tested and maintained in compliance with the specifications in and requirements of Onshore Operating Order #2.

The choke manifold will be located outside the rig sub-structure. BOP will be fitted with hand wheels and extension. The hydraulic BOP closing unit will be located at least twenty-five (25) feet from the wellhead but readily accessible to the driller.

Exact locations and configurations of the hydraulic BOP closing unit will depend upon the particular rig contracted to drill this hole.

A flare line will be installed after the choke manifold, extending 100 feet (minimum) from the center of the drill hole to a separate flare pit.

4. The Proposed Casing and Cementing Program: (All New)

A. Casing Program

Hole Size Casing Size Wt./Ft. Grade Joint Depth Set

12-1/4"	8-5/8"	24#	K-55	ST&C	0-250'
7-7/8"	5-1/2"	17.0#	K-55	LT&C	0-7175'

Casing string(s) will be pressure tested to 0.22 psi per foot, or 1500 psi (not to exceed 70% of the internal yield strength of the casing), whichever is greater, after cementing and prior to drilling out from under the casing shoe.

B. Cementing Program

Surface Casing : Cement with approximately 180 sx. Class "G" cement + 2% CaCl₂ and 1/4#/sk Flocele circulated to surface with 100% excess.

Production Casing: Lead with approximately 400 sx. Hi-fill cement with 1#/sx. capseal; tail with 600 sx. 50-50 POZ w/10% salt, 2% gel, .6% Halad 24, 1/4#/sx. Flocele & 1#/sx. capseal. Cement will be circulated back to surface with 30% excess.

Actual cement volumes to be required will be determined from the caliper log.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

5. Mud Program: (Visual Monitoring)

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-1500'	Aerated/ Mist	-----	-----	-----
1500-7175'	Aerated Water	-----	-----	-----

5. Mud Program: (Visual Monitoring - continued)

Sufficient quantities of mud materials will be maintained or readily accessible for the purpose of assuring well control during the course of drilling operations.

The surface hole will be drilled with an air mist system, injecting water @ the rate of 15-20 gallons/minute, until the lost circulation zone is reached @ $\pm 1500'$. At that point, Coastal Oil & Gas Corporation will switch to an aerated water system, utilizing the rig pumps to inject water at a rate of 190 gallons/minute to total depth.

6. Evaluation Program:

Logs : Dual Laterlog & Caliper : TD - Surface
FDC-CNL : TD - 2300'

DST'S : None anticipated.

Cores : None anticipated.

The proposed evaluation program may change at the discretion of the wellsite geologist, with prior approval from the Authorized Officer, Bureau of Land Management.

Stimulation : No stimulation or frac treatment has been formulated for this test at this time. The drill site, as approved, will be of sufficient size to accommodate all completion activities.

Whether the well is completed as a dry hole or as a producer, Well Completion and Recompletion Report and Log (Form 3160-4) will be submitted to the Vernal District Office not later than thirty (30) days after the completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164.

Two (2) copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the Authorized Officer, Vernal District Office, Bureau of Land Management, 170 South 500 East, Vernal, Utah 84078, Phone: (801) 789-1362.

7. Abnormal Conditions:

No abnormal temperatures or pressures are anticipated. No H₂S has been encountered in or known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom hole pressure equals approximately 3,336 psi (calculated at 0.465 psi/foot) and maximum anticipate surface pressure equals approximately 1,757 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates and Notification of Operations:

A. Drilling Activity

Anticipated Commencement Date : October 1, 1992
Drilling Days : Approximately 10 days
Completion Days : Approximately 7 days

B. Notification of Operations

The Vernal District Office, Bureau of Land Management will be notified at least twenty-four (24) hours PRIOR to the commencement of the following activities:

1. Spudding of the well. This oral report will be followed up with a Sundry Notice (Form 3160-5).
2. Initiating pressure tests of the blow-out preventer and related equipment.
3. Running casing and cementing of ALL casing strings.

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in suspended status without prior approval of the Authorized Officer. If operations are to be suspended, prior approval of the Authorized Officer will be obtained and notification given before resumption of operations.

8. Anticipated Starting Dates and Notification of Operations:

B. Notification of Operations - Continued

In accordance with Onshore Operating Order #1, this well will be reported on MMS Form 3160-6, "Monthly Report of Operations", starting with the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with the Royalty Management Program, Minerals Management Service, P. O. Box 17110, Denver, Colorado 80217.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the provisions of NTL-3A or its current revision.

If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed for prior approval of the Authorized Officer, and all conditions of this approved plan will be applicable during all operations conducted with the replacement rig.

Should the well be successfully completed for production, the Authorized Officer will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication no later than five (5) business days following the date on which the well is placed on production.

Pursuant to NTL-2B, with the approval of the Authorized Officer, produced water may be temporarily disposed of into the reserve pit for a period of up to ninety (90) days. During this period so authorized, an application for approval of the permanent disposal method, along with the required water analysis and other information, must be submitted to the Authorized Officer.

Pursuant to NTL-4A, lessees and operators are authorized to vent/flare gas during initial well evaluation tests, not exceeding a period of thirty (30) days or the production of fifty (50) MMCF of gas, whichever occurs first. An application must be filed with the Authorized Officer, and approval received, for any venting/flaring of gas beyond the initial thirty (30) day or otherwise authorized test period.

8. Anticipated Starting Dates and Notification of Operations:

B. Notification of Operations - Continued

A schematic facilities diagram as required by 43 CFR 3162.7-2, 3162.7-3, and 3162.7-4 shall be submitted to the Vernal District Office within thirty (30) days of installation or first production, whichever occurs first. All site security regulations as specified in 43 CFR 3162.7 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-4.

A first production conference will be scheduled within fifteen (15) days after receipt of the first production notice.

No well abandonment operations will be commenced without the prior approval of the Authorized Officer. In the case of newly-drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the Authorized Officer.

A "Notice of Intention to Abandon" (Form 3160.5) will be filed with the Authorized Officer within fifteen (15) days following the granting of oral approval to plug & abandon.

Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The following information will be permanently placed on the marker with a plate, cap, or beaded-on with a welding torch: "Fed" or "Ind", as applicable; Company Name, Well Name and Number, Location by Quarter/Quarter, Section, Township, Range, and Federal or Indian Lease Number.

A "Subsequent Report of Abandonment" (Form 3160-5) will be submitted within thirty (30) days following the actual plugging of the wellbore. This report will indicate where plugs were placed and the current status of surface restoration operations. If surface restoration has not been completed at that time, a follow-up report on Form 3160-5 will be filed when all surface restoration work has been completed and the location is considered ready for final inspection. Final abandonment will not be approved until the surface reclamation work required by the approved Application for Permit to Drill has been completed to the satisfaction of the Authorized Officer or his representative, or the appropriate Surface Management Agency.

8. Anticipated Starting Dates and Notification of Operations:

B. Notification of Operations - Continued

Pursuant to Onshore Operating Order #1, lessees and operators have the responsibility to see that their exploration, development, production, and construction operations are conducted in such a manner which conforms with applicable Federal laws and regulations and with State and local laws and regulations to the extent that such State and local laws are applicable to operations on Federal and Indian lands.

COASTAL OIL & GAS CORPORATION
Lease #U-01196-D, NBU #205
NW/SE, Section 9, T10S, R22E
Uintah County, Utah

Multi-Point Surface Use and Operations Plan

1. Existing Roads: Refer to Maps "A" & "B" (shown in ORANGE)
 - A. The proposed wellsite is staked and four 200-foot reference stakes are present.
 - B. Proceed westerly from the town of Vernal, Utah on U.S. Highway 40 approximately 14.0 miles to the junction of State Highway 88; exit left and proceed south ± 17.0 miles on State Highway 88 to Ouray, Utah; proceed south from Ouray ± 11.5 miles on the Seep Ridge Road to the junction of this road and an existing oilfield service road to the east; turn left and proceed in an easterly direction along this road ± 8.9 miles to the junction of this road and an existing road to the northeast; turn left and proceed in a northeasterly direction ± 3.3 miles to the junction of this road and an existing road to the northeast; turn right and proceed in a northeasterly direction ± 0.5 miles to the beginning of the proposed access road; follow road flags in a southeasterly direction approximately 100 feet to the proposed location.
 - C. Access roads - refer to Maps "A" and "B".
 - D. Access roads within a one-mile radius - refer to Map "B".
 - E. The existing gravel roads will be maintained in the same or better condition as existed prior to the commencement of operations and said maintenance will continue until final abandonment and reclamation of the NBU #205 well location.
2. Planned Access Roads: Refer to Map "B" (Shown in GREEN)

Approximately 100 feet of new road construction will be required for access to the proposed NBU #205 well location.

 - A. Width - maximum 30-foot overall right-of-way with an 18-foot road running surface, crowned and ditched.

- B. Construction standard - the access road will be constructed in accordance with Bureau of Land Management Rooding Guidelines established for oil and gas exploration and development activities as referenced in the BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development (1989).

The access road will be constructed to meet the standards of the anticipated traffic flow and all-weather requirements. Construction/upgrading will include ditching, draining, gravelling, crowning, and capping the roadbed as necessary to provide a well constructed and safe road.

Prior to construction/upgrading, the roadway shall be cleared of any snow cover and allowed to dry completely.

Traveling off of the thirty (30) foot right-of-way will not be allowed.

Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or the accumulation of debris in the drainage crossing nor shall the drainages be blocked by the roadbed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at a frequent intervals by means of cutouts.

Upgrading shall not be allowed during muddy conditions.

Should mud holes develop, they shall be filled in and detours around them avoided.

- C. Maximum grade - 8%
- D. Turnouts - turnouts will be constructed along the access route as necessary or required to allow for the safe passage of traffic. None anticipated at this time.
- E. Drainage design - the access road will be crowned, ditched, and water turnouts installed as necessary to provide for proper drainage along the access road route.
- F. Culverts, cuts and fills - no culverts will be required. There are no major cuts and/or fills on/along the proposed access road route.

2. Planned Access Roads: Continued

- G. Surface materials (source) - any construction materials which may be required for surfacing of the access road will be purchased from a local contractor having a permitted source of materials in the area, if required by the Authorized Officer, Bureau of Land Management. None anticipated at this time. Native material from access location and access road will be used.
- H. Road maintenance - during both the drilling and production phase of operations, the road surface and shoulders will be kept in a safe and useable condition and will be maintained in accordance with the original construction standards. All drainage ditches and culverts will be kept clear and free-flowing, and will also be maintained in accordance with the original construction standards.
- The access road right-of-way will be kept free of trash during operations.
- I. The proposed access route has been centerline flagged.

3. Location of Existing Wells Within a One-Mile Radius:

Please refer to Map "C"

- A. Water wells - none known.
- B. Abandoned wells - SW1/4, NW1/4, Section 10, T10S, R22E
NE1/4, NE1/4, Section 8, T10S, R22E
NE1/4, NE1/4, Section 16, T10S, R22E
- C. Temporarily abandoned wells - none known.
- D. Disposal wells - none known.
- E. Drilling wells - none known.
- F. Producing wells - SE1/4, SW1/4, Section 4, T10S, R22E
NW1/4, SE1/4, Section 4, T10S, R22E
NW1/4, NW1/4, Section 9, T10S, R22E
SE1/4, NW1/4, Section 9, T10S, R22E
NE1/4, SW1/4, Section 9, T10S, R22E
SE1/4, NE1/4, Section 9, T10S, R22E
SE1/4, SE1/4, Section 9, T10S, R22E
NE1/4, SW1/4, Section 10, T10S, R22E
SW1/4, SW1/4, Section 10, T10S, R22E
- G. Shut-in wells - none known.
- H. Injection wells - none known.
- I. Monitoring wells - none known.

4. Location of Existing and/or Proposed Facilities Owned by Coastal Oil & Gas Corporation Within a One-Mile Radius:

A. If well is productive the following guidelines will be followed:

1. A diagram showing the proposed production facilities layout will be submitted via Sundry Notice Form 3160-5 prior to facilities installation.
2. All production facilities will be located on the disturbed portion of the well pad and at a minimum of twenty-five (25) feet from the toe of the backslope or top of the fill slope.
3. The production facilities (consisting primarily of a christmas tree at the wellhead, dehydration unit, and emergency pit) will require an area approximately 300' x 135'.
4. Production facilities will be accommodated on the existing well pad. Construction materials required for installation of the production facilities will be obtained from the site; any additional materials required will be purchased from a local supplier having a permitted (private) source of materials with the area.

A dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks and/or heater/treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut.

5. All permanent (on-site for six months or longer) above-the-ground structures constructed or installed including pumping units will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the Five (5) State Rocky Mountain Interagency Committee.

4. Location of Existing and/or Proposed Facilities Owned by Coastal Oil & Gas Corporation Within a One-Mile Radius:

A. If well is productive the following guidelines will be followed:

5. Continued

All production facilities will be painted within six (6) months of installation. Facilities required to comply with Occupational Health and Safety Act Rules and Regulations will be excluded from this painting requirement.

The required paint color is Carlsbad Canyon, Munsell standard color number 2.5Y6/2.

6. If at any time the facilities located on public lands and authorized by the terms of the lease are no longer included in the lease (due to a contraction in the unit or other lease or unit boundary change), the Bureau of Land Management will process a change in authorization to the appropriate statute. The authorization will be subject to the appropriate rental or other financial obligation as determined by the Authorized Officer.

7. A 4" surface gas pipeline will be installed from the NBU #205 gas well and tie into the existing gas pipeline located in Section 9, T10S, R22E (see attached Topo Map D). This pipeline will be inside the Natural Buttes Unit boundary and within federal lease U-01196-D. A 30' width easement of approximately 752' length is requested for this pipeline. There will be minimum surface disturbance as the pipeline will be laid on the surface.

B. The production (emergency) pit will be fenced with woven wire mesh topped with one (1) strand of barbed wire held in place with metal side posts and wooden corner "H" braces in order to protect livestock and wildlife. Please refer to Item #9E (page #10) for additional information on the fencing specifications.

4. Location of Existing and/or Proposed Facilities Owned by Coastal Oil & Gas Corporation Within a One-Mile Radius:
Continued

- C. During drilling and subsequent operations, all equipment and vehicles will be confined to the access road right-of-way and any additional areas as specified in the approved Application for Permit to Drill.
- D. Reclamation of disturbed areas no longer needed for operations will be accomplished by grading, leveling and seeding as recommended by the Authorized Officer, Bureau of Land Management.

5. Location and Type of Water Supply:

- A. Fresh water for drilling will be obtained from the Indian water line in Ouray, Utah, located in the SE1/4 of Section 32, Township 8 South, Range 20 East, Uintah County, Utah.
- B. Water will be transported over existing roads via tank truck from the point of diversion to the proposed NBU #205 well location. No new construction will be required on/along the proposed water haul route. No off-lease/unit federal lands will be crossed on/along the proposed water haul route.
- C. No water well will be drilled on this location.

6. Source of Construction Materials:

- A. Construction materials needed for surfacing of the well pad will be native from location and/or access road.
- B. No construction materials will be taken from Federal and/or Indian lands without prior approval from the appropriate Surface Management Agency.
- C. If production is established, any additional construction materials needed for surfacing the access road and installation of production facilities will be purchased from a local supplier having a permitted (private) source of materials in the area.
- D. No new access roads for construction materials will be required.

7. Methods of Handling Waste Materials:

- A. Cuttings - the cuttings will be deposited in the reserve/blooiie pit.
- B. Drilling fluids - including salts and chemicals will be contained in the reserve/blooiie pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within ninety (90) days after termination of drilling and completion activities.

In the event adverse weather conditions prevent removal of the fluids from the reserve pit within this time period, an extension may be granted by the Authorized Officer upon receipt of a written request from Coastal Oil & Gas Corporation. The reserve pit will be constructed so as not to leak, break, or allow discharge. The reserve pit will be lined. A plastic nylon reinforced liner will be used. It will be a minimum of 12 MIL thickness w/sufficient bedding (either straw or dirt) to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash, scrap pipe, etc., that could puncture the liner will be disposed of in the pit. More stringent protective requirements may be deemed necessary by the Authorized Officer.

- C. Produced fluids - liquid hydrocarbons produced during completion operations will be placed in test tanks on the location. Produced waste water will be confined to a lined pit (reserve pit) or storage tank for a period not to exceed ninety (90) days after initial production. During the ninety (90) day period, in accordance with NTL-2B, an application for approval of a permanent disposal method and location, along with the required water analysis, shall be submitted for the Authorized Officer's approval. Failure to file an application within the time frame allowed will be considered an incidence of noncompliance.

Any spills of oil, gas, salt water or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

7. Methods of Handling Waste Materials: Continued

- D. Sewage - self-contained, chemical toilets will be provided by Rocket Sanitation for human waste disposal. Upon completion of operations, or as needed, the toilet holding tanks will be pumped and the contents thereof disposed of in the nearest, approved, sewage disposal facility.
- E. Garbage (trash) and other waste material - garbage, trash and other waste materials will be collected in a portable, self-contained and fully-enclosed trash cage during drilling and completion operations. Upon completion of operations (or as needed) the accumulated trash will be disposed of at an authorized sanitary landfill. No trash will be burned on location or placed in the reserve pit.
- F. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned up and removed from the well location. No adverse materials will be left on the location upon the termination of drilling and completion operations. Any open pits will be fenced during the drilling operation and the fencing will be maintained until such time as the pits are backfilled.

8. Ancillary Facilities:

None anticipated.

9. Wellsite Layout:

- A. Figure #1 shows the drill site layout as staked. Cross sections have been drafted to visualize the planned cuts and fills across the location. A minimum of six (6) inches of topsoil will be stripped from the location (including areas of cut, fill, and/or subsoil storage) and stockpiled for future reclamation of the wellsite. Refer to Figure #1 for the location of the topsoil and subsoil stockpiles. (Stockpiled topsoil will be located on the south side of the location.) The reserve pit will be located on the southeast side of the location. The flare pit will be located downwind of the prevailing wind direction on the southeast side of location. Access to the location will be from the north. The drainage(s) from location shall be diverted from location and go toward the silt dam.

9. Wellsite Layout: Continued

- B. Figure #1 is a diagram showing the rig layout. No permanent living facilities are planned. There will be one (1) trailer on location during drilling operations for the toolpusher.
- C. A diagram showing the proposed production facility layout will be submitted to the Authorized Officer via Sundry Notice (Form 3160-5) for approval of subsequent operations. Please refer to Item #4A (pages #4 and #5) for additional information in this regard.
- D. An impervious liner will be installed in order to prevent drilling water loss through seepage.
- E. Prior to the commencement of drilling operations, the reserve pit will be fenced "sheep tight" on three (3) sides according to the following minimum standards:
 - 1. 39-inch net wire shall be used with at least one (1) strand of barbed wire on top of the net wire (barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence).
 - 2. The net wire shall be no more than two (2) inches above the ground. The barbed wire shall be three (3) inches above the net wire. Total height of the fence shall be at least 42 inches.
 - 3. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
 - 4. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any two (2) posts shall be no greater than sixteen (16) feet.
 - 5. All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The fourth side of the reserve pit will be fenced immediately upon removal of the drilling rig and the fencing will be maintained until the pit is backfilled.
- F. Any hydrocarbons on the pit will be removed from the pit as soon as possible after drilling operations are completed.

10. Plans for Reclamation of the Surface:

A. Production

1. Immediately upon well completion, the well location and surrounding area(s) will be cleared of all unused tubing, equipment, debris, materials, trash and junk not required for production.
2. Immediately upon well completion, any hydrocarbons on the pit shall be removed in accordance with 43 CFR 3162.7-1.
3. The plastic or nylon reinforced pit liner shall be torn and perforated before backfilling of the reserve pit.
4. Before any dirt work to restore the location takes place, the reserve pit will be completely dry and all cans, barrels, pipe, etc. will be removed. Other waste and spoil materials will be disposed of immediately upon completion of drilling and workover activities.
5. The reserve pit and that portion of the location and access road not needed for production facilities/operations will be reclaimed within ninety (90) days from the date of well completion, weather permitting.
6. For production, the fill slopes will be reduced from a 1.5:1 slope to a 3:1 slope and the cut slopes will be reduced from a 1.5:1 slope to a 3:1 slope by pushing the fill material back up into the cut.
7. Upon completion of backfilling, leveling and recontouring, the stockpiled topsoil will be evenly spread over the reclaimed area(s). Prior to reseeding, all disturbed surfaces (including the access road and location) will be scarified and left with a rough surface. No depressions will be left that would trap water and form ponds. All disturbed surfaces (including the access road and well pad areas) will be reseeded with a seed mixture to be recommended by the Authorized Officer, Bureau of Land Management.

10. Plans for Reclamation of the Surface:

A. Production: Continued

8. Seed will be drilled on the contour to an approximate depth of one-half (1/2) inch. All seeding will be conducted after September 15 and prior to ground frost.

B. Dry Hole/Abandoned Location

1. At such time as the well is physically plugged and abandoned, Coastal Oil & Gas Corporation will submit a "Subsequent Report of Abandonment" to the Authorized Officer for approval. At that time, the Bureau of Land Management will formulate and appropriate surface rehabilitation requirements and attach them as the conditions of approval for final abandonment.

11. Surface Ownership:

The wellsite and proposed access road in Section 9, T10S-R22E, are situated on surface estate which is owned by the United States of America.

This surface estate is administered by:

Area Manager
Book Cliffs Resource Area Office
Bureau of Land Management
170 South 500 East
Vernal, Utah 84078
Phone: (801) 789-1362

12. Other Information:

- A. Coastal Oil & Gas Corporation will be responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites or for collecting artifacts.

12. Other Information:

A. Continued:

If historic or archaeological materials are uncovered, Coastal Oil & Gas Corporation will suspend all operations that might further disturb such materials and immediately contact the Authorized Officer.

Within five (5) working days the Authorized Officer will inform Coastal Oil & Gas Corporation as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and
- a time frame for the Authorized Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the Authorized Officer are correct and that mitigation is appropriate.

If Coastal Oil & Gas Corporation wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the Authorized Officer will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, Coastal Oil & Gas Corporation will be responsible for mitigation costs.

The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that the required mitigation has been completed, Coastal Oil & Gas Corporation will then be allowed to resume construction.

12. Other Information: Continued

- B. Coastal Oil & Gas Corporation will control noxious weeds along rights-of-way for roads, pipelines, well sites, or other applicable facilities. A list of noxious weeds may be obtained from the Bureau of Land Management, or the Uintah County Extension Office. On lands administered by the Bureau of Land Management, it is required that a "Pesticide Use Proposal" shall be submitted, and approval obtained, prior to the application of herbicides or other pesticides or possible hazardous chemicals for the control of noxious weeds.
- C. Drilling rigs and/or equipment used during drilling operations on this wellsite will not be stacked or stored on federal lands after conclusion of drilling operations or at any other time without the proper authorization from the Bureau of Land Management. However, if BLM authorization is obtained, it is only a temporary measure to allow Coastal Oil & Gas Corporation the time to make arrangements for permanent storage at a commercial facility.

13. Additional Surface Stipulations:

- A. A silt catchment dam will be constructed as necessary per BLM's request and specifications to the northeast of the location.
- B. Coastal Oil & Gas Corporation shall contact the Bureau of Land Management between 24 and 48 hours prior to commencement of construction activities on the access road and/or well location: (801) 789-1362
- C. The Bureau of Land Management shall be notified upon site completion and prior to moving drilling tools onto the location.

14. Lessee's or Operator's Representative and Certification:

Representative

Coastal Oil & Gas Corporation
Randy L. Bartley, Operations Manager
P. O. Box 749
Denver, Colorado 80201-0749
Phone: (303) 572-1121

14. Lessee's or Operator's Representative and Certification:

Representative: Continued

Eileen Dey, Regulatory Analyst*
P. O. Box 749
Denver, Colorado 80201-0749
Phone: (303) 573-4476

* Contact for any additional information which may be required for approval of this Application for Permit to Drill.

Certification:

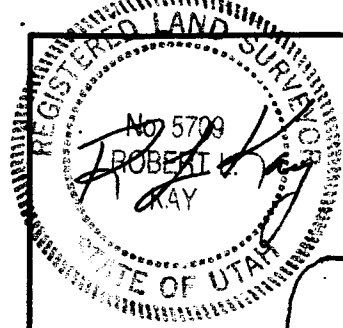
All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil & Gas Orders, the approved plan of operations, and any applicable Notice to Lessees.

Coastal Oil & Gas Corporation will be fully responsible for the actions of their subcontractors. A complete copy of the approved Application for Permit to Drill will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Coastal Oil & Gas Corporation, its' contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

8/26/92
Date

Eileen Danni Dey
Eileen Danni Dey - Regulatory Analyst

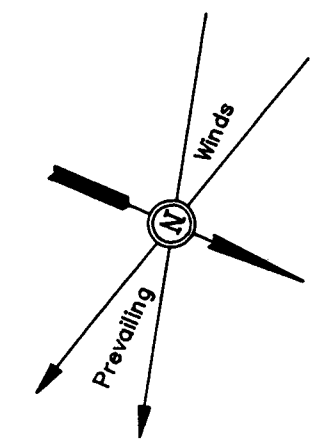


COASTAL OIL & GAS CORP.

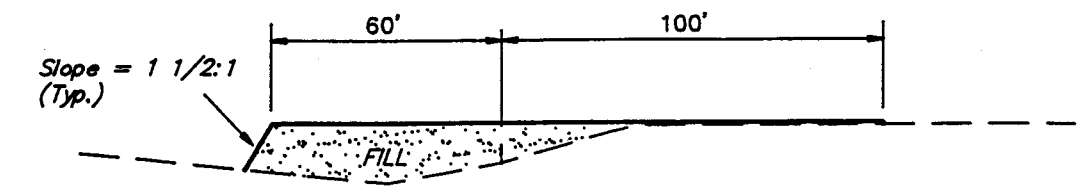
LOCATION LAYOUT FOR

NBU #205

SECTION 9, T10S, R22E, S.L.B.&M.

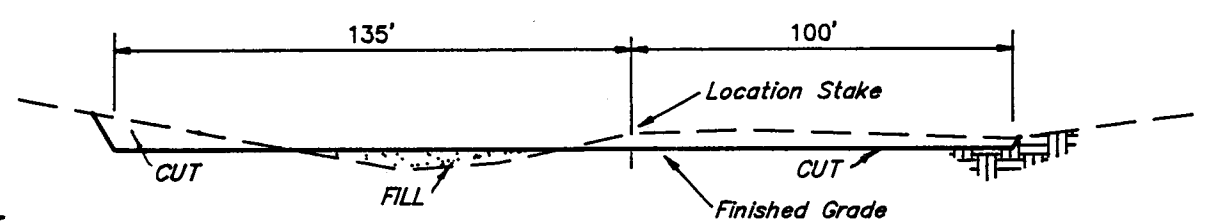


SCALE: 1" = 50'
DATE: 7-27-92
Drawn By: R.E.H.
Revised: 8-24-92 T.D.H.

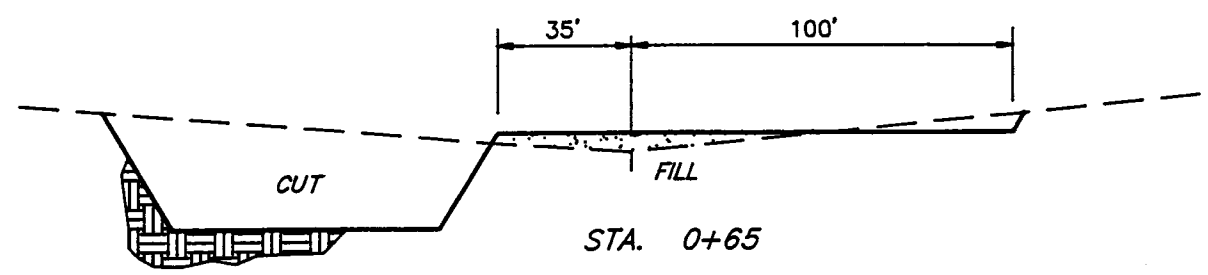


STA. 3+25

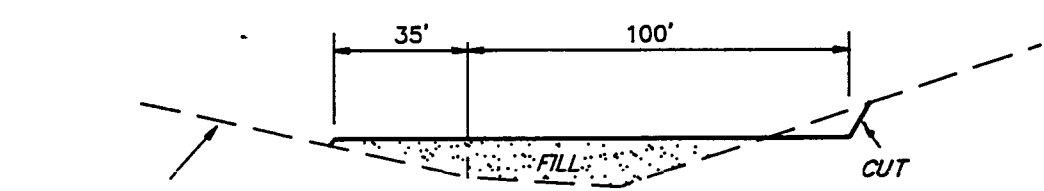
1" = 20'
X-Section Scale
1" = 50'



STA. 1+50



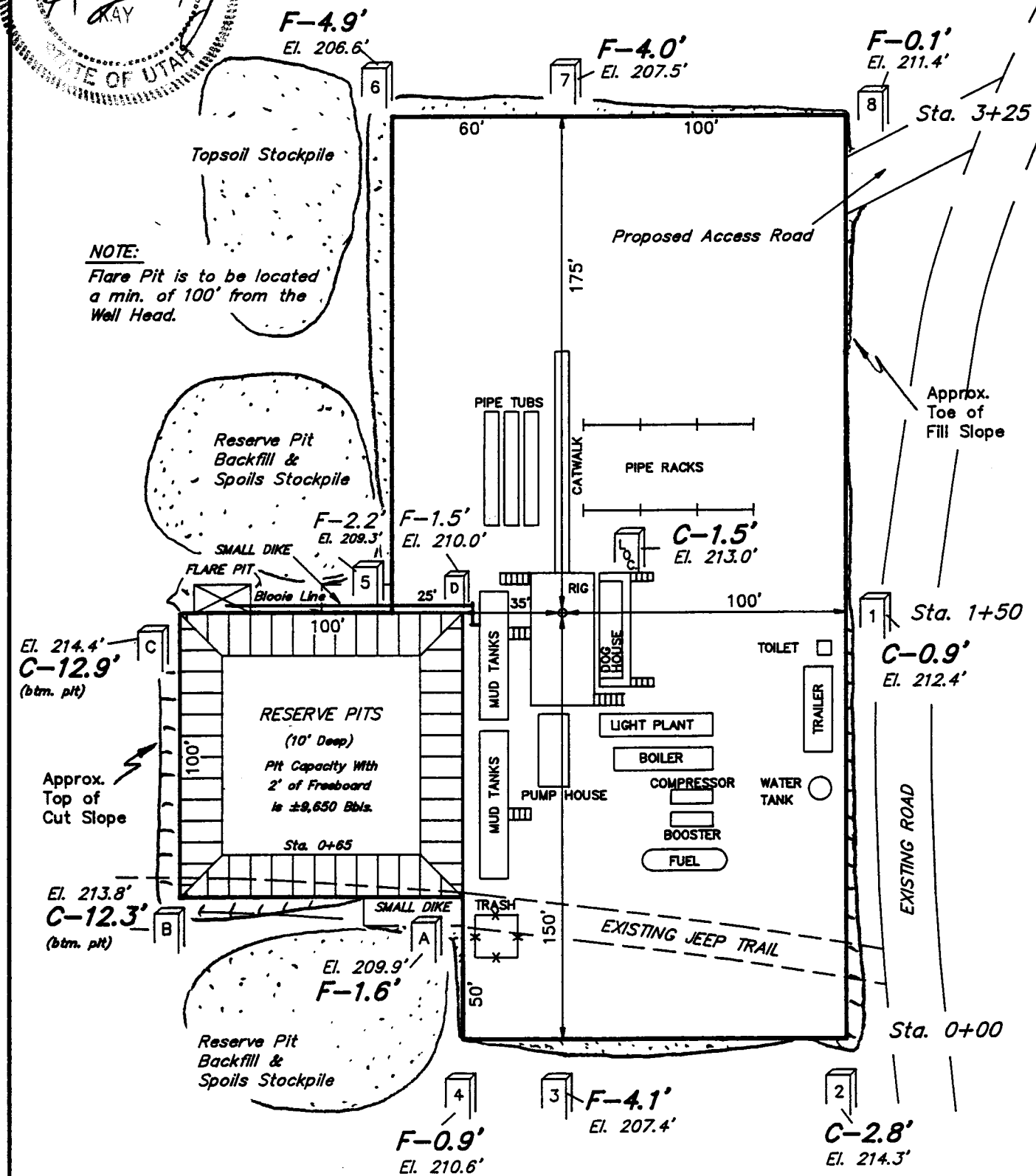
STA. 0+65



STA. 0+00

TYP. LOCATION LAYOUT
TYP. CROSS SECTIONS

NOTE:
Flare Pit is to be located
a min. of 100' from the
Well Head.



APPROXIMATE YARDAGES

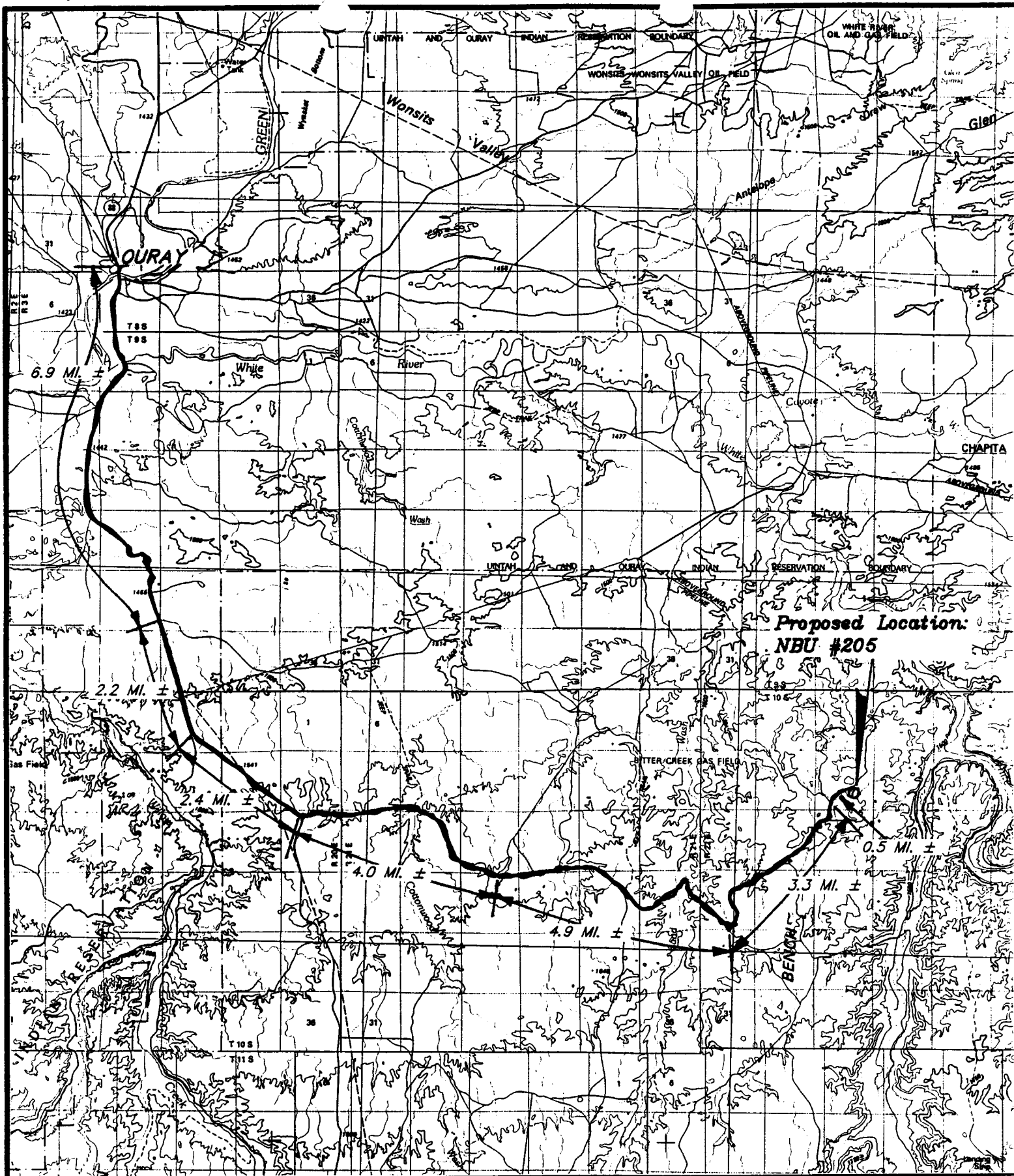
CUT	
(6") Topsoil Stripping	= 1,080 Cu. Yds.
Remaining Location	= 3,510 Cu. Yds.
TOTAL CUT	= 4,590 CU.YDS.
FILL	= 2,050 CU.YDS.

EXCESS MATERIAL AFTER	
5% COMPACTION	= 2,430 Cu. Yds.
Topsoil & Pit Backfill	= 2,430 Cu. Yds.
(1/2 Pit Vol.)	
EXCESS UNBALANCE	= 0 Cu. Yds.
(After Rehabilitation)	

NOTES:

Elev. Ungraded Ground At Loc. Stake = 5213.0'
FINISHED GRADE ELEV. AT LOC. STAKE = 5211.5'

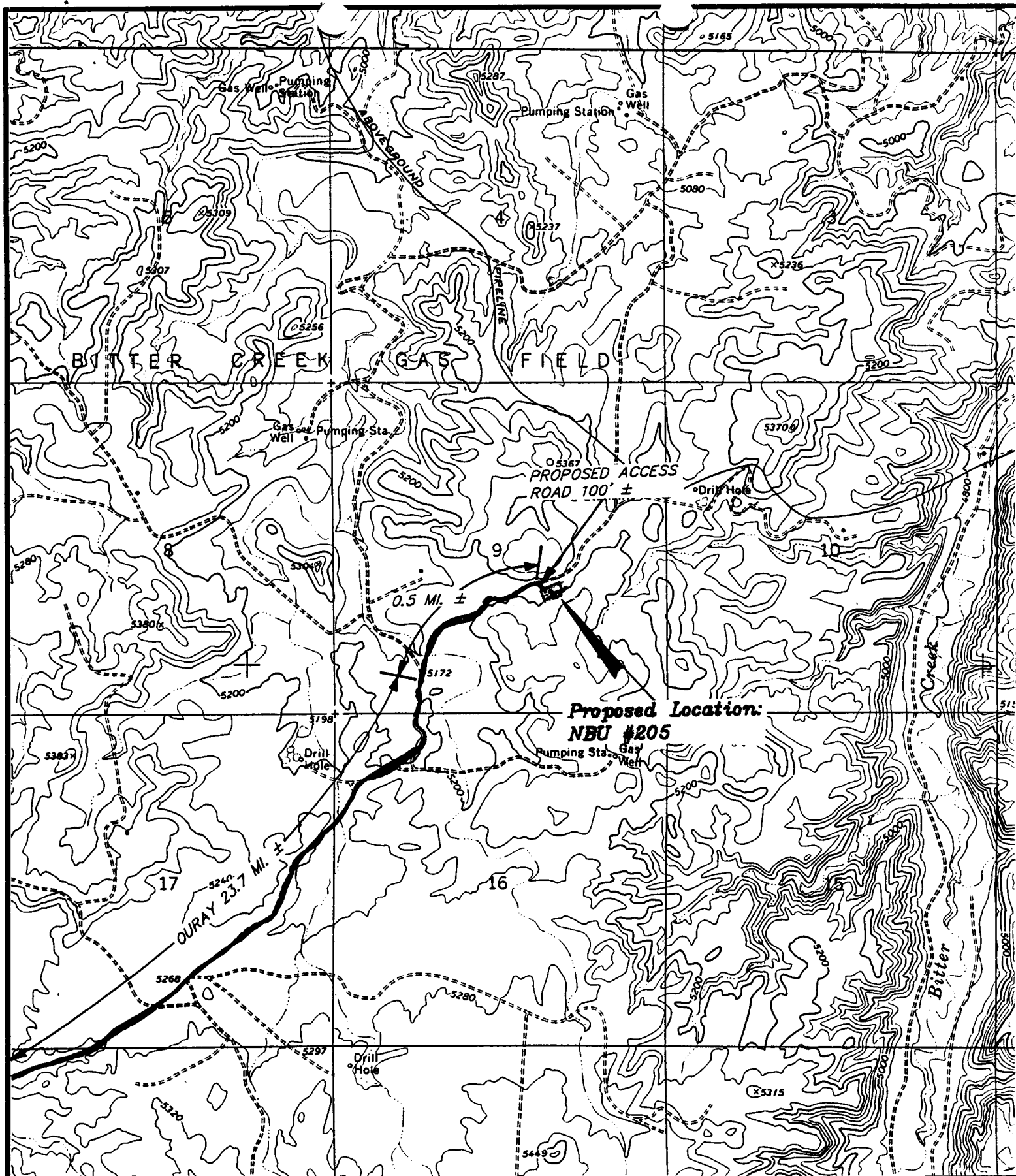
FIGURE #1



COASTAL OIL & GAS CORP.

NBU #205

SECTION 9, T10S, R22E, S.L.B.&M.



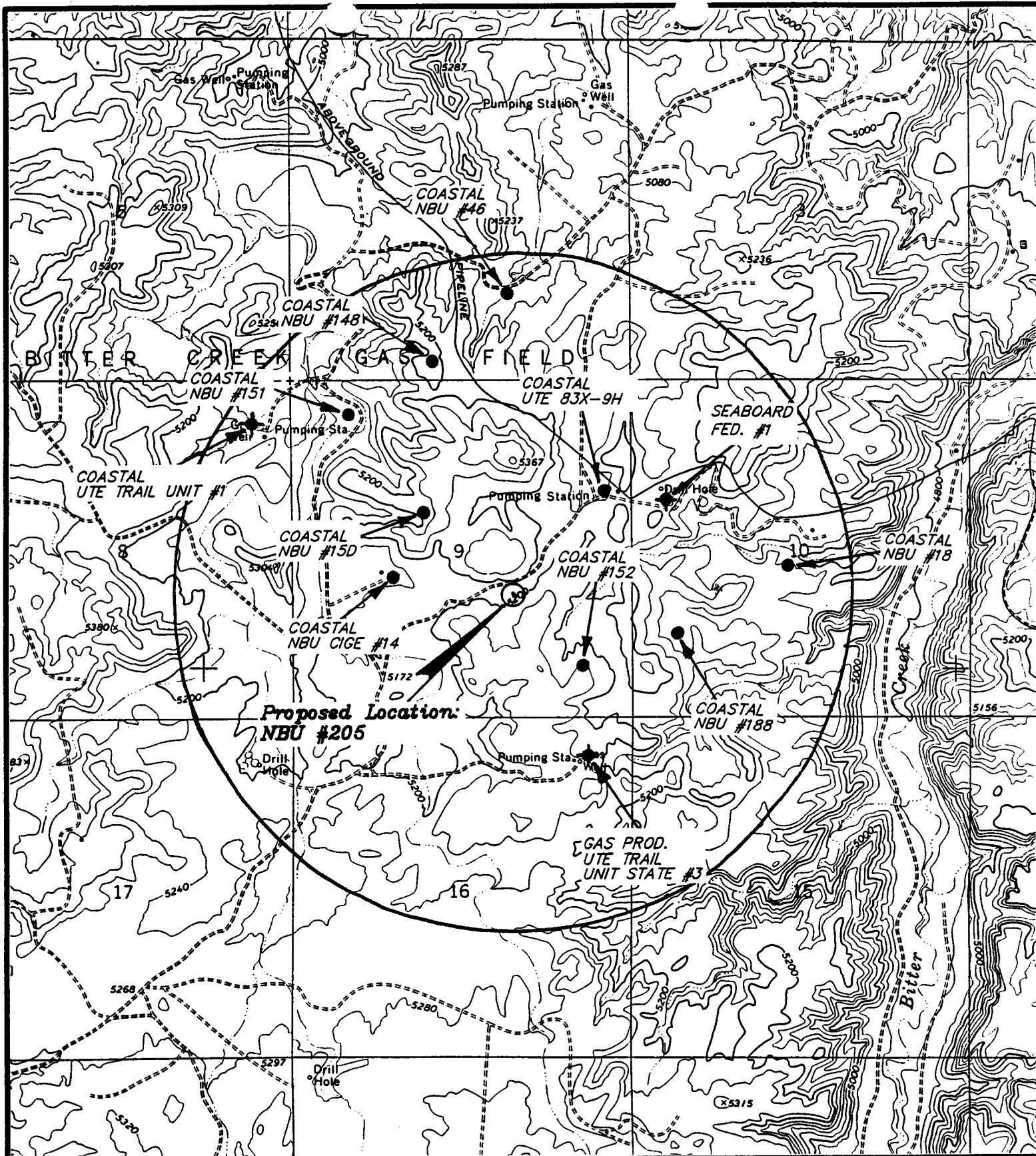
TOPOGRAPHIC
MAP "B"

SCALE: 1" = 2000'
DATE 7-26-92 J.L.G.



COASTAL OIL & GAS CORP.

NBU #205
SECTION 9, T10S, R22E, S.L.B.&M.



LEGEND:

- ◊ = Water Wells
- ◆ = Abandoned Wells
- ◐ = Temporarily Abandoned Wells
- ◑ = Disposal Wells
- = Drilling Wells
- = Producing Wells
- ◐ = Shut-in Wells



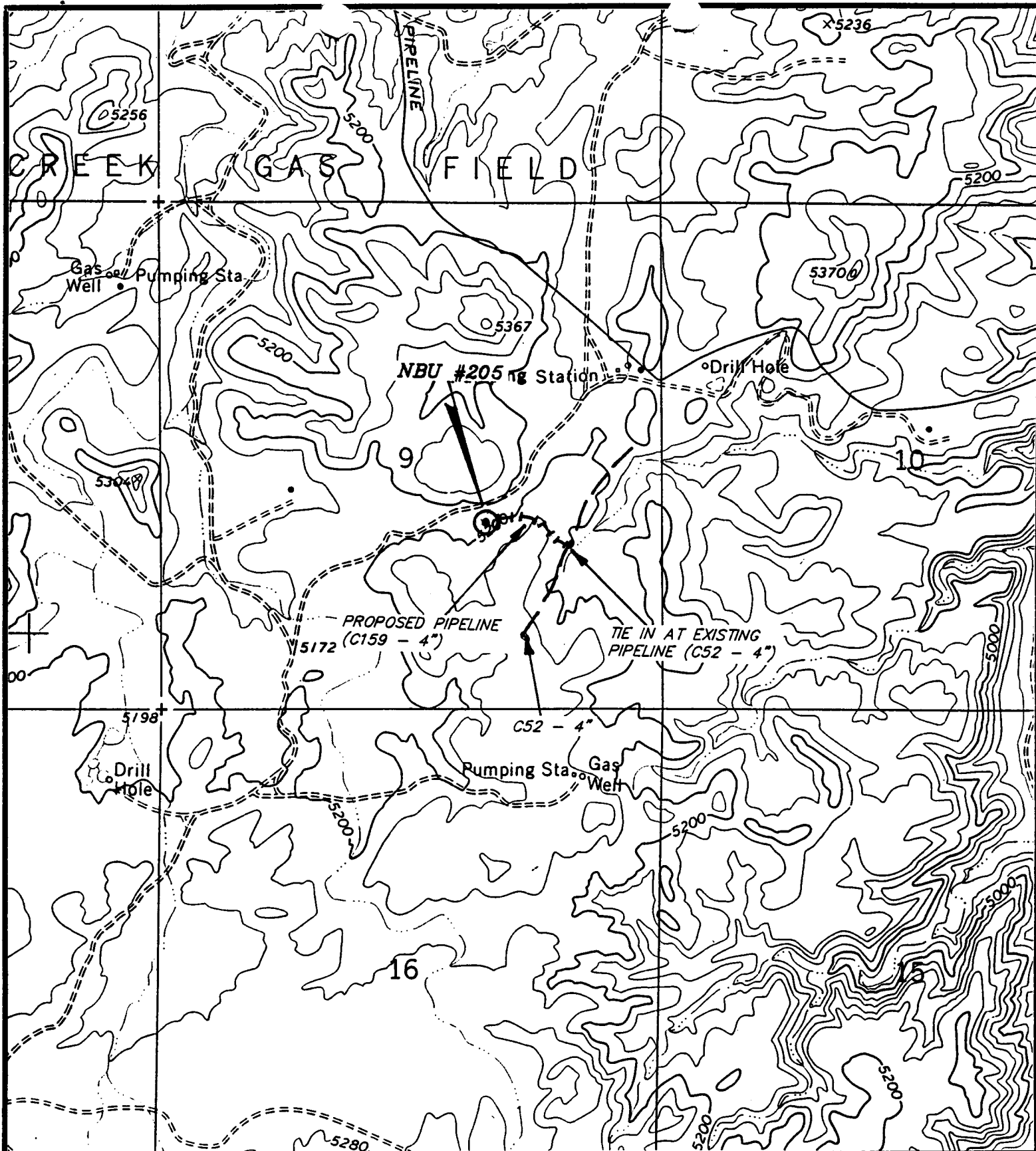
COASTAL OIL & GAS CORP.

NBU #205

SECTION 9, T10S, R22E, S.L.B.&M.

TOPO MAP "C"

DATE: 7-27-92 J.L.G.



TOTAL PIPELINE SLOPE DISTANCE = 752'

**TOPOGRAPHIC
MAP "D"**

LEGEND

- EXISTING PIPELINE
- Proposed Pipeline



COASTAL OIL & GAS CORP.
 PROPOSED PIPELINE RIGHT-OF-WAY FOR
 NBU #205
 SECTION 9, T10S, R22E, S.L.B.&M.
 DATE: 7-29-92

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

DATE RECEIVED: 08/31/92

OPERATOR: COASTAL OIL & GAS CORP
WELL NAME: NBU 205

OPERATOR ACCT NO: N-0030

API NO. ASSIGNED: 43-047-30344

LEASE TYPE: FED LEASE NO: J-01196-0
LOCATION: NWSE 09 - T10S - R22E UINTAH COUNTY
FIELD: NATURAL BUTTES FIELD CODE: 630

RECEIVED AND/OR REVIEWED:

☒ Plat
☒ Bond
☒ (Number federal)
☒ Potash (Y/N)
☒ Oil shale (Y/N)
☒ Water permit
☒ (Number Indiana)
☒ RDCC Review (Y/N)
☐ (Date: _____)

LOCATION AND SITING:

☒ R649-2-3. Unit: Natural Buttes
☐ R649-3-2. General.
☐ R649-3-3. Exception.
☐ Drilling Unit.
☐ Board Cause no: _____
☐ Date: _____

COMMENTS:

Included in fourth supplemental to POD app 8-7-90

STIPULATIONS:

Oil shale area



Norman H. Bangerter
Governor

Dee C. Hansen
Executive Director

Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

September 9, 1992

Coastal Oil and Gas Corporation
P.O. Box 749
Denver, Colorado 80201-0749

Gentlemen:

Re: NBU 205 Well, 1981 feet from the south line, 1808 feet from the east line, NW 1/4 SE 1/4, Section 9, Township 10 South, Range 22 East, Uintah County, Utah

Pursuant to Utah Code Ann. § 40-6-18, (1953, as amended), Utah Admin. R. 649-2-3, Application of Rules to Unit Agreements and R. 649-3-4, Permitting of Wells to be Drilled, Deepened or Plugged-Back, approval to drill the referenced well is hereby granted.

In addition, the following specific actions are necessary to fully comply with this approval:

1. Compliance with the requirements of Utah Admin. R. 649-1 et seq., Oil and Gas Conservation General Rules.
2. Notification within 24 hours after drilling operations commence.
3. Submittal of Entity Action Form, Form 6, within five working days following commencement of drilling operations and whenever a change in operations or interests necessitates an entity status change.
4. Submittal of the Report of Water Encountered During Drilling, Form 7.
5. Prompt notification prior to commencing operations, if necessary, to plug and abandon the well. Notify Frank R. Matthews, Petroleum Engineer, (Office) (801)538-5340, (Home) (801)476-8613, or R.J. Firth, Associate Director, (Home) (801)571-6068.

Page 2
Coastal Oil and Gas Corporation
NBU 205 Well
September 9, 1992

6. Compliance with the requirements of Utah Admin. R. 649-3-20, Gas Flaring or Venting, if the well is completed for production.

Trash and sanitary waste should be properly contained and transported to approved disposal locations, not retained in or disposed of in pits on location or downhole. Prior to the commencement of drilling operations, the operator should consult the local/county sanitarian and/or the Department of Environmental Quality, Division of Drinking Water/Sanitation, regarding appropriate disposal of sanitary waste.

This approval shall expire one year after date of issuance unless substantial and continuous operation is underway or a request for an extension is made prior to the approval expiration date. The API number assigned to this well is 43-047-32344.

Sincerely,

A handwritten signature in black ink, appearing to read 'R.J. Firth', is written over the printed name.

R.J. Firth
Associate Director, Oil and Gas

ldc
Enclosures
cc: Bureau of Land Management
J.L. Thompson
WO11

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: COASTAL 43-047-32344

WELL NAME: NBU 205

Section 9 Township 10S Range 22E County UINTAH

Drilling Contractor COASTAL

Rig # 2

SPUDDED: Date 9/15/92

Time 10:00 AM

How DRY HOLE

Drilling will commence

Reported by DOUG W/LEON ROSS

Telephone # 1-722-4469

Date 9/15/92 SIGNED CJK

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☐

GAS
WELL ☒

OTHER

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Coastal Oil & Gas Corporation

3. ADDRESS OF OPERATOR

P.O. Box 749 Denver, CO 80201-0749 (303) 573-4476

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface 1808' FEL & 1981' FSL (NW/SE) Section 9, T10S, R22E

At proposed prod. zone

Same as above.

43-047-32344

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

Approximately 24 miles southeast of Ourway, Utah

10. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drig. unit line, if any)

1808'

16. NO. OF ACRES IN LEASE

320

17. NO. OF ACRES ASSIGNED
TO THIS WELL

80

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

1550'

19. PROPOSED DEPTH

7175'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, ET, GR, etc.)

5213' GR

22. APPROX. DATE WORK WILL START*

October 1, 1992

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" K-55	24.0#	250'	1800 sx circ to surface *
7-7/8"	5-1/2" K-55	17.0#	150'	1800 sx circ to surface *

* Cement volumes may change due to hole size.
Calculate from Caliper log.

SEP 23 1992

RECEIVED

DIVISION OF

AUG 27 1992

EIGHT-POINT RESOURCE PROTECTION PLAN ATTACHED. OIL GAS & MINING

I hereby certify that Coastal Oil & Gas Corporation is authorized by the proper Lease Interest Owners to conduct lease operations associated with this Application for Permit to Drill the NBU #205, Federal Lease U-01196-D. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Coastal Oil & Gas Corporation Nation-wide Bond #CO-0018, who will be responsible for compliance with all the terms and conditions of that portion of the lease associated with this Application.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Eileen Hanni Dey

TITLE Regulatory Analyst

DATE 8/26/92

PERMIT NO.

APPROVAL DATE

APPROVED BY

Handwritten signature

TITLE ASSISTANT DISTRICT
MANAGER MINERALS

DATE SEP 11 1992

CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL

*See Instructions On Reverse Side

CONDITIONS OF APPROVAL ATTACHED
TO PERMIT DOCUMENT

44080-211-237

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

RECEIVED

SEP 23 1992

CONDITIONS OF APPROVAL FOR THE
APPLICATION FOR PERMIT TO DRILL

DIVISION OF
OIL GAS & MINING

Company/Operator: Coastal Oil and Gas

Well Name & Number: NBU 205

Lease Number: U-01196-D

Location: NWSE Sec. 9 T.10 S. R.22 E.

Surface Ownership: Federal

NOTIFICATION REQUIREMENTS

- Location Construction - at least forty-eight (48) hours prior to construction of location and access roads.
- Location Completion - prior to moving on the drilling rig.
- Spud Notice - at least twenty-four (24) hours prior to spudding the well.
- Casing String and Cementing - at least twenty-four (24) hours prior to running casing and cementing all casing strings.
- BOP and Related Equipment Tests - at least twenty-four (24) hours prior to initiating pressure tests.
- First Production Notice - within five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.

RECEIVED

SEP 23 1992

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

DIVISION OF
OIL GAS & MINING

Company Coastal Oil and Gas Corporation Well No. NBU 205

Location NWSE, Section 9, T10S, R22E Lease No. U - 01196 - D

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

A. DRILLING PROGRAM

1. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered

Report ALL water shows and water-bearing sands to Tim Ingwell of this office. Copies of State of Utah form OGC-8-X are acceptable. If noticeable water flows are detected, submit samples to this office along with any water analyses conducted.

All usable water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

2. Pressure Control Equipment

Chart recorders shall be used for all pressure tests.

Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a BLM representative upon request.

If an air compressor is on location and is being utilized to provide air for the drilling medium while drilling, the special drilling requirements in Onshore Oil and Gas Order No. 2, regarding air or gas drilling shall be adhered to. If a mist system is being utilized then the requirement for a deduster shall be waived.

3. Casing Program and Auxiliary Equipment

Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint.

As a minimum, the usable water and oil shale resources shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the top of the Mahogany oil shale, identified at \pm 2,110 ft. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

4. Mud Program and Circulating Medium

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

5. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

All Drill Stem tests (DST) shall be accomplished during daylight hours, unless specific approval to start during other hours is obtained from the AO. However, DSTs may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vapor-proof for safe operations). Packers can be released, but tripping should not begin before daylight unless prior approval is obtained from the AO.

A cement bond log (CBL) shall be utilized to determine the top of cement (TOC) and bond quality for the production casing.

6. Notification of Operations

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the Authorized Officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted and the operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to.

7. Other Information

All loading lines will be placed inside the berm surrounding the tank battery.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the AO.

Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried or anchored down from the wellhead to the meter and within 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal District Office. All meter measurement facilities will conform with Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas measurement.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

APD approval is valid for a period of one (1) year from the signature date. An extension period may be granted, if requested, prior to the expiration of the original approval period.

In the event after-hours approvals are necessary, please contact one of the following individuals:

Gerald E. Kenczka	(801) 781-1190
Petroleum Engineer	

Ed Forsman	(801) 789-7077
Petroleum Engineer	

BLM FAX Machine	(801) 789-3634
-----------------	----------------

EPA'S LIST OF NONEXEMPT EXPLORATION AND PRODUCTION WASTES

While the following wastes are nonexempt, they are not necessarily hazardous.

Unused fracturing fluids or acids

Gas plant cooling tower cleaning wastes

Painting wastes

Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spend solvents, spilled chemicals, and waste acids

Vacuum truck and drum rinsate from trucks and drums, transporting or containing nonexempt waste

Refinery wastes

Liquid and solid wastes generated by crude oil and tank bottom reclaimers

Used equipment lubrication oils

Waste compressor oil, filters, and blowdown

Used hydraulic fluids

Waste solvents

Waste in transportation pipeline-related pits

Caustic or acid cleaners

Boiler cleaning wastes

Boiler refractory bricks

Incinerator ash

Laboratory wastes

Sanitary wastes

Pesticide wastes

Radioactive tracer wastes

Drums, insulation and miscellaneous solids.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.
U-01196-D

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

Natural Buttes Unit

8. Well Name and No.

NBU #205

9. API Well No.

43-047-32344

10. Field and Pool, or Exploratory Area

Natural Buttes

11. County or Parish, State

Uintah County, Utah

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Coastal Oil & Gas Corporation

3. Address and Telephone No.

P. O. Box 749 Denver, CO 80201-0749 (303) 573-4476

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1808' FEL & 1981' FSL (NW/SE)
Section 9, T10S-R22E

CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent

☒ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☒ Other Report of Spud

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut-Off

☐ Conversion to Injection

☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

MIRU Leon Ross Drilling, Inc. Spudded surface hole @ 10:00 a.m., 9/15/92. Drilled 12-1/4" hole to 263' GL. Ran 6 joints 8-5/8" 24# K-55 ST&C casing and set @ 271'. Cemented w/150 sx Premium AG cement w/2% CaCl₂ and 1/4 pps flocele.

RECEIVED

SEP 25 1992

DIVISION OF
OIL AND GAS DRILLING

14. I hereby certify that the foregoing is true and correct

Signed

Title Regulatory Analyst

Date 9/22/92

(This space for Federal or State Office Use)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See instruction on Reverse Side

ENTITY ACTION FORM - FORM 6

OPERATOR Coastal Oil & Gas Corporation
ADDRESS P. O. Box 749
Denver, CO 80201-0749

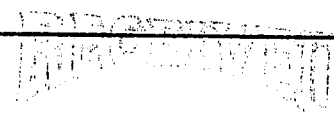
OPERATOR ACCT. NO. N 0230

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
B	2900	→	43-047-32323	CIGE #174-33-9-22	NESW	33	9S	22E	Uintah	9/17/92	9/17/92
WELL 1 COMMENTS: FOR: CIG Exploration <i>Entitles added 9-29-92. JCF</i>											
B	2900	→	43-047-32298	NBU #191	SWSW	15	9S	21E	Uintah	9/17/92	9/17/92
WELL 2 COMMENTS:											
B	2900	→	43-047-32344	NBU #205	NWSE	9	10S	22E	Uintah	9/15/92	9/15/92
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

ACTION CODES (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.



SEP 25 1992

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Eileen Danni Dey
Signature Eileen Danni Dey

Regulatory Analyst 9/22/92
Title Date

Phone No. (303) 573-4476

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	7. If Unit or CA. Agreement Designation Natural Buttes Unit
2. Name of Operator Coastal Oil & Gas Corporation	8. Well Name and No. NBU #205
3. Address and Telephone No. P.O. Box 749 Denver, CO 80201-0749 (303) 573-4476	9. API Well No. 43-047-32344
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1808' FEL & 1981' FSL (NW/SE) Section 9, T10S, R22E	10. Field and Pool, or Exploratory Area Natural Buttes
	11. Country or Parish, State Uintah, Utah

CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | |
|--|---|
| <input type="checkbox"/> Abandonment
<input type="checkbox"/> Recompletion
<input type="checkbox"/> Plugging Back
<input type="checkbox"/> Casing Repair
<input type="checkbox"/> Altering Casing
<input checked="" type="checkbox"/> Other Rpt of Operations | <input type="checkbox"/> Change of Plans
<input type="checkbox"/> New Construction
<input type="checkbox"/> Non-Routine Fracturing
<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Conversion to Injection
<input type="checkbox"/> Dispose Water |
|--|---|

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Please see the attached chronological history for the drilling operations for the above-referenced well.

RECEIVED

OCT 16 1992

DIVISION OF
OIL GAS & MINING

14. I hereby certify that the foregoing is true and correct

Signed Eileen Dennis Day Title Regulatory Analyst Date 10/13/92
(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See instruction on Reverse Side

COASTAL OIL & GAS CORPORATION
CHRONOLOGICAL HISTORY

NBU #205
NATURAL BUTTES UNIT
UINTAH COUNTY, UTAH
COASTALDRIL #1
WI: 100% COGC AFE: 13838
ATD: 7100' (WASATCH) SD: 9/25/92
CSG: 8-5/8" @ 271'; 5-1/2" @ 7263'
DHC(M\$): 192.9

9/22/92 271' Spud well at 10:00 a.m. on 9/15/92 w/Leon Ross Drlg. Drill 12-1/4" hole to 263' GL. Run 6 jts 8-5/8" 24# K-55 ST&C csg (tally 261.20'). Set at 271' KB. Cmt csg w/Halliburton. Pump 150 sx Premium AG cmt w/2% CaCl₂, 1/4#/sx Flocele. Displace w/14-3/4 BFW and circ 7 bbls cmt to surf. CC: \$10,648.

9/25/92 650' Drlg 379'/5.5 hrs. Spud well at 12:01 a.m., 9/25/92. RURT, NU and test BOPE to 2000 psi. Tst hydril and csg to 1500 psi, OK. PU BHA. Tag cmt at 240'. Drlg shoe and cmt. Svy: 3/4 deg @ 522'. Drlg w/air mist, CFM 1400, 10-20 GPM @ 200 psi. CC: \$71,856.

9/26/92 2100' Drlg 1450'/22 hrs. Drlg, svys: 1 deg @ 1015'; 1-1/4 deg @ 1517'; 1-1/4 deg @ 2019'. RS, chk BOP, drlg, chg rot hd rbr. Hit wtr at 1530', XO to A. wtr drlg at 1567'. CFM 700. CC: \$80,594.

9/27/92 3275' Drlg 1175'/22.5 hrs. Drlg, svys: 1-1/2 deg @ 2522'; 1-1/2 deg @ 2990'. RS, chk BOP, drlg w/aerated wtr, CFM 700. CC: \$87,542.

9/28/92 4295' Drlg 1020'/22.5 hrs. Drlg, svys: 1 deg @ 3493'; 1-3/4 deg @ 3997'. RS, chk BOP, drlg w/aerated wtr. CFM 400. CC: \$95,321.

9/29/92 5025' Drlg 730'/23 hrs. Drlg, RS, chk BOP, svy: 2-1/2 deg @ 4562'. Drlg brks 4915-4928 & 4954-4966'. Aerated DAP wtr, CFM 300. CC: \$109,183.

9/30/92 5625' Drlg 600'/19 hrs. Drlg, drop svy: 1-3/4 deg @ 5524'. POH, chg bit and RIH w/DC's. RS, TIH. W&R 25' to btm. Drlg. Drlg brks from 5014-5030', 5288-94', 5374-90', 5443-52'. Aerated DAP wtr. CFM 300. CC: \$121,926.

10/1/92 6200' Drlg 575'/23.5 hrs. Drlg, RS, chk BOP, drlg w/aerated wtr, 6#/bbl DAP. CFM 300 SCF. CC: \$131,075.

10/2/92 6680' Drlg 480'/23.5 hrs. Drlg, svy: 1-1/4 deg @ 6268'. RS, chk BOPE. Drlg brk 6422-6432'. Aerated DAP (6 ppb). CC: \$141,064.

10/3/92 7250' Drlg 570'/23.5 hrs. Drlg, RS, chk BOP's. Drlg breaks from 6638-6650', 6727-6753', 6768-6778', 6834-6847', 6960-6982', 7010-7022', 7065-7077', 7131-7163'. Aerated DAP wtr, 300 CFM. CC: \$149,397.

10/4/92 7263' Run open hole logs. 13'/1/2 hr. Drlg, circ for short trip, 35 stds. Tight at 7140-7263', no fill. Circ and displ hole w/400 bbls 10# brine. TOH for logs. SLM, n corr. RU HLS. Run DLL/FDC/CNL. Hit tight spot at 6580'. Work to 6625', could not work deeper. POH, separate tool. RIH w/FDC-CNL log, 46' long. Could not work past 6625'. POH, RD wireline. TIH, hit bridge at 7098'. Rotate and wash 5 jts to btm, 10' fill. C&C hole w/6 #/bbl DAP. 15 std short trip, 10' of fill. TOH for logs. RU & RIH w/logs. Aerated DAP wtr. 300 CFM. CC: \$159,069.

10/5/92 7263' RD MORT. Log w/HLS. Logger's TD: 7127'. Ran CD/dual spaced neutron and DLL/GR. TIH w/bit. RU LD machine. LD DP and DC's. RU csg tools. RIH w/165 jts 5-1/2" 17# K-55 LT&C, 7272.01'. Set at 7263'. Circ and work 243' to btm. RU Howco. Pmp 20 bbls FW, 30 bbls Super flush, 20 BW, 260 sx Hifill w/1#/sx Capseal and .3% HR7. 11#/gal. Tail w/1080 sx 50-50 Poz w/2% gel, 10% salt, .6% HA-24, .2% CFR-3, 1#/sx Capseal, 1/4#/sx Flocele. Mixed at 14.1#/gal. Displace w/167 bbls FW. Bump plug to 2000# (500 over). Floats held. Good lift w/no returns. ND BOP. Set slips w/100,000#. Cut off csg. Released rig at 6:00 a.m., 10/5/92. CC: \$257,150. FINAL DRILLING REPORT.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. U-01196-D
2. Name of Operator Coastal Oil & Gas Corporation	6. If Indian, Allottee or Tribe Name N/A
3. Address and Telephone No. P. O. Box 749 Denver, CO 80201-0749 (303) 573-4476	7. If Unit or CA, Agreement Designation Natural Buttes Unit
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1808' FEL & 1981' FSL (NW/SE) Section 9, T10S-R22E	8. Well Name and No. NBU #205
	9. API Well No. 43-047-32344
	10. Field and Pool, or Exploratory Area Natural Buttes
	11. County or Parish, State Uintah County, Utah

12. **CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other First Sales
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

The above referenced well was connected to CIG's gas salesline and first sales occurred at 11:45 a.m., 1/30/93, with a rate of 1115 MCFPD, 0 BOPD, 0 BWPD, FTP 1116 psi, SICP 939 psi, on 11/64" choke.

RECEIVED

FEB 16 1993

**DIVISION OF
OIL, GAS & MINING**

14. I hereby certify that the foregoing is true and correct

Signed Kileen Danni Day Title Regulatory Analyst Date 2/4/93
(This space for Federal or State office use)

Approved by _____
Conditions of approval, if any:

Title _____ Date _____

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See instruction on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

RECEIVED
FEB 24 1993

OIL-GAS-MINING

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. REVR. ☐

2. NAME OF OPERATOR
Coastal Oil & Gas Corporation

3. ADDRESS OF OPERATOR
P. O. Box 749 Denver, CO 80201-0749

4. LOCATION OF WELL (Report location clearly and in accordance with any State or Federal Survey)
At surface 1808' FEL & 1981' FSL (NW/SE)

At top prod. interval reported below Same as above.

At total depth Same as above.

14. PERMIT NO. 43-047-32344 DATE ISSUED 9/9/92

15. DATE SPUDDED 9/15/92 16. DATE T.D. REACHED 10/3/92 17. DATE COMPL. (Ready to prod.) 1/23/93 18. ELEVATIONS (DF, RMR, ST, GR, ETC.)* 5213' GR

20. TOTAL DEPTH, MD & TVD 7263' 21. PLUG BACK T.D., MD & TVD 7206' 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY SFC-TD

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

4376'-6432' (Wasatch)

26. TYPE ELECTRIC AND OTHER LOGS RUN DLI; DSN/CDL; CBL/CCL/GR 11-17-92

29. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	271'	12-1/4"	150 sx PREM AG	None
5-1/2"	17#	7263'	7-7/8"	1340 sx HiFill & 50/50 Poz	None
			8-5/8"X5-1/2"	Annulus; 205 sx "G" Bullhead Squeeze	

LINER RECORD					TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-3/8"	4328'	6500' CIBP

31. PERFORATION RECORD (Interval, size and number) Perf'd w/4" csg gun, 1 JSPF @ the following depths:

STAGE I
6436' 6956' 7078' 4376' 5021' 5447'
6739' 6967' 4532' 5032' 5735'
6745' 6979' 4962' 5293' 5826'
6806' 7015' 4969' 5297' 6432'

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
6436'-7078'	33 bbls 15% HCl & 30 BS's
4376'-6432'	33 bbls 15% HCl & 36 BS's
4376'-6432'	101,800 gals 40# CMHPG; 162 tons CO ₂ ; 280.00# 20/40 sand

33. PRODUCTION
DATE FIRST PRODUCTION 10/17/92 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing WELL STATUS (Producing or shut-in) Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BSL.	GAS—MCF.	WATER—BSL.	GAS-OIL RATIO
1/23/93	24	18/64"		0	1000	0	N/A
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BSL.	GAS—MCF.	WATER—BSL.	OIL GRAVITY-API (CORR.)	
650	675		0	1000	0		N/A

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Sold TEST WITNESSED BY B. Rawlings

35. LIST OF ATTACHMENTS
Chronological History

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Eileen Danni Day TITLE Regulatory Analyst DATE 2/19/93

*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Wasatch	4300'	4300'

COASTAL OIL & GAS CORPORATION
CHRONOLOGICAL HISTORY

NBU #205
NATURAL BUTTES UNIT
UINTAH COUNTY, UTAH
COASTALDRIL #1
WI: 100% COGC AFE: 13838
ATD: 7100' (WASATCH) SD: 9/25/92
CSG: 8-5/8" @ 271'; 5-1/2" @ 7263'
DHC(M\$): 192.9

9/22/92 271' Spud well at 10:00 a.m. on 9/15/92 w/Leon Ross Drlg. Drill 12-1/4" hole to 263' GL. Run 6 jts 8-5/8" 24# K-55 ST&C csg (tally 261.20'). Set at 271' KB. Cmt csg w/Halliburton. Pump 150 sx Premium AG cmt w/2% CaCl₂, 1/4#/sx Flocele. Displace w/14-3/4 BFW and circ 7 bbls cmt to surf. CC: \$10,648.

9/25/92 650' Drlg 379'/5.5 hrs. Spud well at 12:01 a.m., 9/25/92. RURT, NU and test BOPE to 2000 psi. Tst hydril and csg to 1500 psi, OK. PU BHA. Tag cmt at 240'. Drlg shoe and cmt. Svy: 3/4 deg @ 522'. Drlg w/air mist, CFM 1400, 10-20 GPM @ 200 psi. CC: \$71,856.

9/26/92 2100' Drlg 1450'/22 hrs. Drlg, svys: 1 deg @ 1015'; 1-1/4 deg @ 1517'; 1-1/4 deg @ 2019'. RS, chk BOP, drlg, chg rot hd rbr. Hit wtr at 1530', XO to A. wtr drlg at 1567'. CFM 700. CC: \$80,594.

9/27/92 3275' Drlg 1175'/22.5 hrs. Drlg, svys: 1-1/2 deg @ 2522'; 1-1/2 deg @ 2990'. RS, chk BOP, drlg w/aerated wtr, CFM 700. CC: \$87,542.

9/28/92 4295' Drlg 1020'/22.5 hrs. Drlg, svys: 1 deg @ 3493'; 1-3/4 deg @ 3997'. RS, chk BOP, drlg w/aerated wtr. CFM 400. CC: \$95,321.

9/29/92 5025' Drlg 730'/23 hrs. Drlg, RS, chk BOP, svy: 2-1/2 deg @ 4562'. Drlg brks 4915-4928 & 4954-4966'. Aerated DAP wtr, CFM 300. CC: \$109,183.

9/30/92 5625' Drlg 600'/19 hrs. Drlg, drop svy: 1-3/4 deg @ 5524'. POH, chg bit and RIH w/DC's. RS, TIH. W&R 25' to btm. Drlg. Drlg brks from 5014-5030', 5288-94', 5374-90', 5443-52'. Aerated DAP wtr. CFM 300. CC: \$121,926.

10/1/92 6200' Drlg 575'/23.5 hrs. Drlg, RS, chk BOP, drlg w/aerated wtr, 6#/bbl DAP. CFM 300 SCF. CC: \$131,075.

10/2/92 6680' Drlg 480'/23.5 hrs. Drlg, svy: 1-1/4 deg @ 6268'. RS, chk BOPE. Drlg brk 6422-6432'. Aerated DAP (6 ppb). CC: \$141,064.

10/3/92 7250' Drlg 570'/23.5 hrs. Drlg, RS, chk BOP's. Drlg breaks from 6638-6650', 6727-6753', 6768-6778', 6834-6847', 6960-6982', 7010-7022', 7065-7077', 7131-7163'. Aerated DAP wtr, 300 CFM. CC: \$149,397.

10/4/92 7263' Run open hole logs. 13 1/2 hr. Drlg, circ for short trip, 35 stds. Tight at 7140-7263', no fill. Circ and displ hole w/400 bbls 10# brine. TOH for logs. SLM, n corr. RU HLS. Run DLL/FDC/CNL. Hit tight spot at 6580'. Work to 6625', could not work deeper. POH, separate tool. RIH w/FDC-CNL log, 46' long. Could not work past 6625'. POH, RD wireline. TIH, hit bridge at 7098'. Rotate and wash 5 jts to btm, 10' fill. C&C hole w/6 #/bbl DAP. 15 std short trip, 10' of fill. TOH for logs. RU & RIH w/logs. Aerated DAP wtr. 300 CFM. CC: \$159,069.

10/5/92 7263' RD MORT. Log w/HLS. Logger's TD: 7127'. Ran CD/dual spaced neutron and DLL/GR. TIH w/bit. RU LD machine. LD DP and DC's. RU csg tools. RIH w/165 jts 5-1/2" 17# K-55 LT&C, 7272.01'. Set at 7263'. Circ and work 243' to btm. RU Howco. Pmp 20 bbls FW, 30 bbls Super flush, 20 BW, 260 sx Hifill w/1#/sx Capseal and .3% HR7. 11#/gal. Tail w/1080 sx 50-50 Poz w/2% gel, 10% salt, .6% HA-24, .2% CFR-3, 1#/sx Capseal, 1/4#/sx Flocele. Mixed at 14.1#/gal. Displace w/167 bbls FW. Bump plug to 2000# (500 over). Floats held. Good lift w/no returns. ND BOP. Set slips w/100,000#. Cut off csg. Released rig at 6:00 a.m., 10/5/92. CC: \$257,150. FINAL DRILLING REPORT.

THE COASTAL CORPORATION
PRODUCTION REPORT

CHRONOLOGICAL HISTORY

PAGE 2

NBU #205
NW/SE SECTION 9, T10S-R22E
NATURAL BUTTES UNIT
UINTAH COUNTY, UTAH
WI: 100% COGC AFE: 13838
TD: 7263' (WASATCH) SD: 9/25/92
CSG: 5-1/2" @ 7263'
PERFS: 6436'-7078'
CWC(M\$): 402.4

- 10/6/92 WOCU. Drop from report until further activity.
TC: \$257,150
- 10/14/92 WO completion rig. MIRU Cutters WLS w/mast truck. Ran CBL-CCL-GR log from 7163' to surface w/1000 psi on csg. Good bond, TOC @ 1570'.
RDMO WL.
DC: \$23,310 TC: \$280,460
- 10/15/92 Prep to perf. MIRU Western OWS rig #22. NU BOP. PU & RIH w/4-3/4" mill & 2-3/8" tbg. Tag PBTD @ 7206'. Circ hole w/170 bbls 3% KCl wtr. POH w/tbg & mill. PT csg to 5000 psi, OK. SDFN.
DC: \$3,710 TC: \$284,170
- 10/17/92 Flow back after acid breakdown. RU Cutters WLS. Perf 9 holes 6436'-7078' w/4" csg gun. RIH w/tbg to 7075'. RU Smith Energy. Spot 15 bbls 15% HCl across perfs. PU tbg to 6393'. ND BOP, NU WH. Breakdown perfs w/33 bbls 15% HCl + 30 BS's. BD @ 2700 psi. Treat @ 7.3 BPM @ 4860 psi. Balled off to 5000 psi. Surge off balls, finish flush. ISIP 1660 psi, 15 min 1200 psi. Flwd to pit 1/2-hr, rec 25 BW. Made 8 swab runs, rec 92 BW. Flow 1.5 hr, rec 30 BW. Made 6 swab runs, rec 56 BW, wk gas blow, SION. Total rec 203 bbls, total load 238 bbls. Tbg - 201 jts landed @ 6393' w/notched collar on btm, SN 1-jt above & 10' blast jt on top.
DC: \$26,980 TC: \$311,150
- 10/17/92 Flwg 300 MCFD gas, 10 BFPD (10% oil), FTP 150 psi, CP 1400 psi, 20/64" chk.
- 10/18/92 Flwg 50 MCFD gas, 5 BFPD (10% oil), FTP 50 psi, CP 725 psi, 20/64" chk. Prep to RDMO completion rig.
- 10/19/92 Flwg 900 MCFD dry gas, FTP 25 psi, CP 525 psi, 20/64" chk.
- 10/20/92 Flow testing well. Flwg 80 MCFD dry gas, FTP 25 psi, CP 550 psi, 20/64" chk. Made 1 swab run, rec 3 BW. Well kicked off. RD & moved Western OWS rig #22 to yard.
DC: \$3,000 TC: \$314,150
- 10/21/92 Flwg 80 MCF dry gas, FTP 25 psi, CP 125 psi, 20/64" chk.
- 10/22/92 MIRU Western Company. Mix & displace LCM pill, 55 sx Class "G" w/2% CaCl₂, .7% CF-2, 3 pps Hi-Seal 3, 1/4 pps Cello Seal, 150 sx Class "G" w/2% CaCl₂ + .7% CF-2. Well on vac at end of job. RD Western.
DC: \$5,819 TC: \$319,969
- 10/23/92 Flwg 130 MCFD dry gas, FTP 50 psi, CP 700 psi, 20/64" chk.

THE COASTAL CORPORATION
PRODUCTION REPORT

CHRONOLOGICAL HISTORY

PAGE 3

NBU #205 (RECOMPLETE WASATCH)
NW/SE SECTION 9, T10S-R22E
NATURAL BUTTES UNIT
UINTAH COUNTY, UTAH
WI: 100% COGC AFE: 13838
TD: 7263' (WASATCH) SD: 9/25/92
CSG: 5-1/2" @ 7263' PBD: 6500' (CIBP)
PERFS: 4376'-6432'
CWC(M\$): 402.4

- 12/23/92 Set CIBP & perforate. Press this a.m. - tbg 2800#, csg 1500#. MIRU WOWS rig #12. Blow well down & kill w/50 bbls 3% KCl. ND WH, NU BOP's. POOH w/201 jts tbg.
DC: \$3,750 TC: \$323,719
- 12/24/92 Flow test (swab). Press - tbg 1250#, csg 1250#. Blow down. MIRU Cutters WLS. Set 5-1/2" x 17# CIBP @ 6500'. Perf 9 zones, 12 holes w/4" csg guns, 1 JSPF, 4376'-6432'. RDMO Cutters. TIH w/201 jts tbg. MIRU Western. Spot 48 bbls 15% HCl across perfs. Flush w/17 bbls 3% KCl. POOH & LD 66 jts tbg. Leave prod string, EOT @ 4328.21. RD BOP's, NU WH. RU Western. Breakdown perfs: Test sfc 6000#, OK. Breakdown @ 4800#, 7.4 BPM, 17 bbl 3% KCl. Pump 33 bbl 15% HCl w/36 - 1.3 GR balls. Pump 23 bbls 3% flush. Locked up. Surge balls. Pump 42 bbls, 6.2 BPM @ 5000#. ISIP 2400#, 5 min 2200#, 10 min 2150#, 15 min 2100#. RDMO Western. Flow to pit. 265 BLTBR. Max rate 6.2 BPM @ 5000#, avg rate 6 BPM @ 4500#.
DC: \$11,851 TC: \$335,570
- 12/24/92 Flwg 1.0 MMCFD, FTP 550 psi, CP froze, 20/64" chk, 5-10 BWPD.
- 12/25/92 SI, WO frac. Flwd 300 MCFD gas, FTP 100 psi, CP 450 psi, 20/64" chk, 3 BWPD. SI @ 2:00 p.m., 12/24/92. Drop from report.
- 1/11/93 Flow back after frac. Set & fill frac tanks & CO₂ vessels. RU Western Company frac equip. Frac perfs 4376'-6432' (13 holes) w/101,800 gal 40# CMHPG + 162 tons CO₂ (30% to 15%) + 280,000# 20/40 sand. AIR 30 BPM @ 2900 psi. ISIP 1650 psi, 5 min 1540 psi, 10 min 1500 psi, 15 min 1440 psi. SI 2-hrs. Start flow back @ 4:00 p.m. on 18/64" chk. 2510 BLTBR.
DC: \$101,500 TC: \$437,070
- 1/11/93 Flwg 1.0 MMCFD CO₂, FTP 590 psi, CP 870 psi, 18/64" chk, 4 BWPH.
- 1/12/93 Flwg 1.5 MMCFD CO₂, FTP 800 psi, CP 950 psi, 18/64" chk, 5 BWPH.
- 1/13/93 Flwg 1.2 MMCFD CO₂, FTP 800 psi, CP 850 psi, 18/64" chk, 2 BWPH.
- 1/14/93 Flwg 1.2 MMCFD CO₂, FTP 800 psi, CP 800 psi, 18/64" chk, 1 BWPH.
- 1/15/93 Flwg 1.5 MMCFD CO₂, FTP 775 psi, CP 750 psi, 18/64" chk, 1 BWPH.
- 1/16/93 Flwg 1.5 MMCFD CO₂, FTP 750 psi, CP 750 psi, 18/64" chk, 1 BWPH.
- 1/17/93 Flwg 1.5 MMCFD CO₂, FTP 750 psi, CP 750 psi, 18/64" chk, 1-2 BWPH.
- 1/18/93 Flwg 1.3 MMCFD CO₂, FTP 700 psi, CP 700 psi, 18/64" chk, 1 BWPH.
- 1/19/93 Flwg 1.3 MMCFD CO₂, FTP 700 psi, CP 700 psi, 18/64" chk, 1 BWPH.
- 1/20/93 Flwg 1.3 MMCFD CO₂, FTP 700 psi, CP 675 psi, 18/64" chk, 0.5 BWPH.
- 1/21/93 Flwg 1.2 MMCFD CO₂, FTP 700 psi, CP 700 psi, 18/64" chk, 0.5 BWPH.
- 1/22/93 Flwg 1.2 MMCFD CO₂, FTP 675 psi, CP 675 psi, 18/64" chk, 0.5 BWPH.
- 1/23/93 SI, WOPLC. Flwd 1.0 MMCFD dry gas, FTP 650 psi, CP 675 psi, 18/64" chk. SI @ 2:00 p.m., 1/23/93. Drop from report.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such purposes.

SUBMIT IN TRIPLICATE

RECEIVED

JUL 12 1993

Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

Name of Operator

Coastal Oil & Gas Corporation

Address and Telephone No.

P. O. Box 749

Denver, CO 80201-0749

(303) 573-4476

Location of Well (Fontage, Sec., T., R., M., or Survey Description)

1808' FEL & 1981' FSL (NW/SE)

Sec. 9, T10S-R22E

5. Lease Designation and Serial No.

U-01196-D

6. Indian, Ancestral or Tribal Name

N/A

7. If Unit or CA, Agreement Designation

Natural Buttes Unit

8. Well Name and No.

NBU #205

9. API Well No.

43-047-32344

10. Field and Pool, or Exploratory Area

Natural Buttes

11. County or Parish, State

Uintah County, Utah

CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other NTL 2B; IV

- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report returns or multiphase completion on Well Completion or Recompletion Report and Log form.)

3. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Coastal Oil & Gas Corporation hereby requests permission to dispose of produced water in unlined pits per NTL 2B, IV; for the subject well:

- 1) This well is completed in the Wasatch formation and produces less than 5 barrels of water per day on a monthly basis.
- 2) Two unlined pits per location are used, in most cases, due to the size and layout of the location: 40' x 40' x 8' and 6' x 6' x 6' deep with berms surrounding them. Each pit is fenced and has cement corner posts, per BLM specifications. (See the attached typical facilities diagram.)
- 3) The average evaporation rate for the area compensated for annual rainfall is 70 inches per year.
- 4) The estimated percolation rate based on the soil characteristics under and adjacent to the pits is 2-6 inches per hour.
- 5) The depth of usable water aquifers in this area is approximately 1500 feet.

Accepted by the State
of Utah Division of
Oil, Gas and Mining

Date: 7-8-93

By: [Signature]

Federal Approval of this
Action is Necessary 6/28/93

4. I hereby certify that the foregoing is true and correct

Signed

Title

Regulatory Analyst

(This space for Federal or State office use)

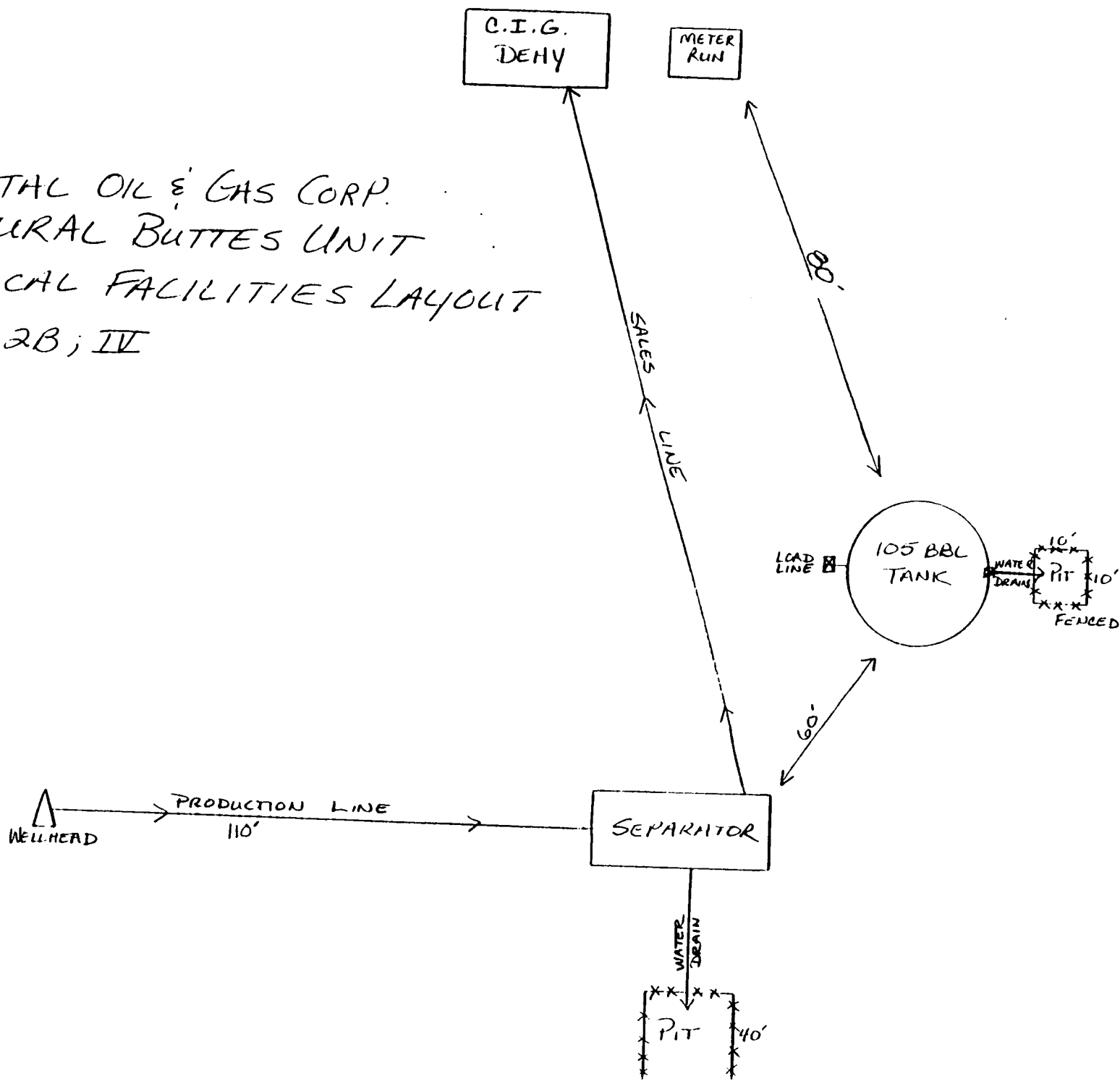
Approved by

Conditions of approval, if any:

Title

Date

COASTAL OIL & GAS CORP.
NATURAL BUTTES UNIT
TYPICAL FACILITIES LAYOUT
NTL-2B; IV



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-C135

Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT" - for such proposals OF OIL, GAS & MIN.

5. Lease Designation and Serial No.

U-01196-D

6. If Indian, Alottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

Natural Buttes Unit

8. Well Name and No.

NBU #205

9. AAPI Well No.

43-047-32344

10. Field and Pool, Or Exploratory Area

Natural Buttes

11. County or Parish, State

Uintah County, UT

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Coastal Oil & Gas Corporation

3. Address and Telephone No.

P. O. Box 749, Denver, CO 80201-0749

(303) 573-4476

4. Location of Well (Footage, Sec., T., R., M., Or Survey Description)

1808' FEL & 1981' FSL (NW/SE)

Section 9-T10S-R22E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Reperf, acidize, lower tbg
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markets and zones pertinent to this work.)*

Please see the attached procedure to re-perforate existing zones, acidize and lower tubing on the subject well.

14. I hereby certify that the foregoing is true and correct

Signed

Bonnie Carson

Title Senior Environmental Analyst

Date

03/05/96

(This space for Federal or State office use)

APPROVED BY

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

WORKOVER PROCEDURE

NBU 205

NW SE Section 9-10S-22E

Uintah County, UT

January 17, 1996

ELEVATION: 5213' GL; 5228' KB
TOTAL DEPTH: 7263' PBD: 7206' (6281' - 10/3/95 SLM)
CASING: 8 $\frac{5}{8}$ ", 24#, K-55 ST&C set @ 271'
5 $\frac{1}{2}$ ", 17#, J-55 set @ 7263'
TUBING: 2 $\frac{3}{8}$ ", 4.7#, N-80 SET @ 4328'
PERFORATIONS: Current - 4376'-6432' 12 holes
Proposed - Reperf existing holes 4 SPF

PROCEDURE:

Average rate prior to WO: 30 MCFD on 30/64" chk w/300 psi TP, 650 psi CP (1/14/96).

Note: S/L survey indicates PBD @ 6281' w/static fluid level @ 4550'.

1. MIRU pulling unit. Control well w/2% KCl wtr. ND WH, NU BOP's. POOH w/2 $\frac{3}{8}$ " tbg.
2. TIH w/bailer assy. CO to CIBP @ 6500'.
3. RU & reperf the following Wasatch depths w/4" guns loaded 4 spf. Depths correlate to GR/CNL/CDL log run 10/4/92.

4376'	5021'	5447'
4532'	5032'	5725'
4962'	5293'	5826'
4969'	5297'	6432'

4. TIH w/2 $\frac{3}{8}$ " tbg to \pm 6432' (Leave at least 50' rathole). Will need to PU \pm 66 jts of 2 $\frac{3}{8}$ " tbg. ND BOP's / NU tree. RDMO PU.
5. MIRU acid service and swbg unit. Pump 2000 gal 15% HCl displaced w/10 bbls 2% KCl to wash perfs. Let soak \pm 3 hours.
6. Swab well in.
7. RDMO swbg unit. Complete plunger lift installation.

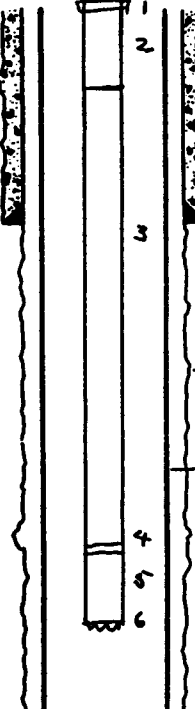
TWH

DOWNHOLE SCHEMATIC

LEASE: NBU
WELL #: 205
FIELD: NBU
LOCATION: _____
COUNTY/STATE: Montana
Liberty
TD: 7263
PBD: 7306 CIR @ 6500
PERFS: 6436 - 7078 (9)
CIR @ 6500
4376 - 6432 (12)
PROD. FORM(S): Wgs skch

12-24-92
DATE: 10/11/92 BY: _____

FORM. TOPS

ITEM, QUANTITY, DEPTHS, GRADE, WEIGHT, CPLG, Etc.	O.D.	I.D.
 <p>HOLE SIZE: <u>12 1/4</u> "</p> <p>SURFACE CASING: O.D. <u>8 5/8</u> ", WEIGHT(S) <u>24</u> # GRADE(S) <u>K-55</u>, CPLG <u>STC</u> SET AT <u>271</u> ' W/ <u>150</u> SX</p> <p>HOLE SIZE: <u>7 1/2</u> "</p> <p>5 1/2 17# K-55 CS 726' W/ 1340 SX</p>		
<p>12-24-92 ECT 4328.21</p>		

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT" - for such proposals

5. Lease Designation and Serial No.

U-01196-D

6. If Indian, Alottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

Natural Buttes Unit

8. Well Name and No.

NBU #205

9. AAPI Well No.

43-047-32344

10. Field and Pool, Or Exploratory Area

Natural Buttes

11. County or Parish, State

Uintah County, UT

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Coastal Oil & Gas Corporation

3. Address and Telephone No.

P. O. Box 749, Denver, CO 80201-0749

(303) 573-4476

4. Location of Well (Footage, Sec., T., R., M., Or Survey Description)

1808' FEL & 1981' FSL (NW/SE)

Section 9-T10S-R22E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION

☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

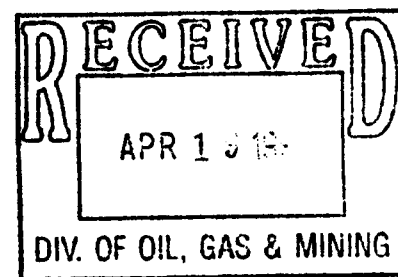
☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other **Revised - Reperf, Acidize & Lower Tbg**

☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markets and zones pertinent to this work.)

Please see the **revised** workover procedure for work to be performed on the subject well. The well was cleaned out and encountered hard scale in the casing. Following the clean out, it was apparent that the full scope of the original procedure could not be completed. An attempt to return the well to production failed, and the well is presently shut-in.



14. I hereby certify that the foregoing is true and correct

Signed

Sheila Bremer
Sheila Bremer

Title Environmental & Safety Analyst

Date

04/17/96

(This space for Federal or State office use)

APPROVED BY

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

WORKOVER PROCEDURE

NBU 205

NW SE Section 9-10S-22E
Uintah County, UT

April 15, 1996

ELEVATION: 5213' GL; 5228' KB
TOTAL DEPTH: 7263' PBTD: 7206' (6281' - 10/3/95 SLM)
CASING: 8 $\frac{1}{2}$ ", 24#, K-55 ST&C set @ 271'
5 $\frac{1}{2}$ ", 17#, J-55 set @ 7263'
TUBING: 2 $\frac{3}{8}$ ", 4.7#, N-80 SET @ 4328'
PERFORATIONS: Current - 4376'-6432' 12 holes
Proposed - Reperf existing holes 4 SPF

PROCEDURE:

1. MIRU pulling unit. Control well. ND WH, NU BOP's. POOH w/2 $\frac{3}{8}$ " tbg.
2. RU & reperf the following Wasatch depths w/4" guns loaded 4 spf. Depths correlate to GR/CNL/CDL log run 10/4/92.

4376'	5021'	5447'
4532'	5032'	5725'
4962'	5293'	5826'
4969'	5297'	6432'

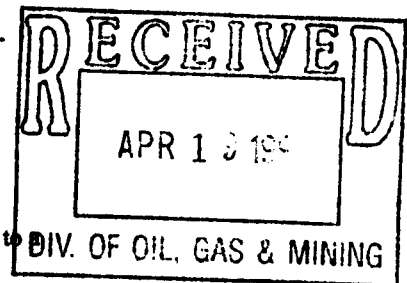
3. PU 5-1/2" RBP & pkr. Include a spot control valve (one-way check) landed in the SN above the packer. TIH and set RBP/pkr @ $\pm 4600/4300'$.
4. Open pkr bypass and spot 600 gal 15% HCl w/additives to include Unichem 767 or Champion T-155 at 10 gal/1000 to the packer at 4300'. Close bypass and pump according to the following suggested settings:

Packer	RBP	Acid Volume
4300'	4600'	200 gal
4900'	5350'	600 gal
5350'	5850'	300 gal
6350'	6450'	150 gal
		1250 gal

- NOTES:**
- Displace surface lines with KCl before moving packer/RBP.
 - Maintain a lower pressure than previous jobs. Pump at ± 1000 psi and go to higher pressure only if rate is less than 0.5 bpm.
 - If time and equipment capabilities allow, increase the number of settings from the above suggestions. Formula is ± 25 gal acid per perforation.
 - Note rates and pressures for each setting on report.

5. Retrieve the check valve and pull the pkr above the perforations. Swab until end of day. Flow overnight if possible.
6. Control well, retrieve RBP & POOH w/pkr & RBP.
7. TIH w/tubing to $\pm 6432'$ (leave a minimum 50' rathole). ND/NU. RDMO.
8. Swab well in. If swabbing more than 3 days, call Denver office to discuss raising plunger seat.

TWH



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

21385

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT" - for such proposals

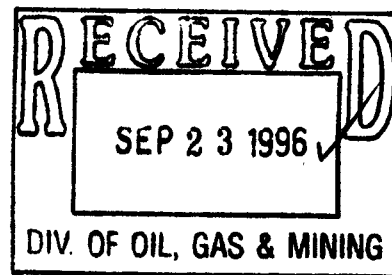
SUBMIT IN TRIPLICATE

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. U-01196-D
2. Name of Operator Coastal Oil & Gas Corporation	6. If Indian, Alottee or Tribe Name N/A
3. Address and Telephone No. P. O. Box 749, Denver, CO 80201-0749 (303) 573-4476	7. If Unit or CA, Agreement Designation Natural Buttes Unit
4. Location of Well (Footage, Sec., T., R., M., Or Survey Description) 1808' FEL & 1981' FSL (NW/SE) Section 9-T10S-R22E	8. Well Name and No. NBU #205
	9. API Well No. 43-047-32344
	10. Field and Pool, Or Exploratory Area Natural Buttes
	11. County or Parish, State Uintah County, UT

CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	
TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent <input checked="" type="checkbox"/> Subsequent Report <input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Abandonment <input type="checkbox"/> Recompletion <input type="checkbox"/> Plugging Back <input type="checkbox"/> Casing Repair <input type="checkbox"/> Altering Casing <input checked="" type="checkbox"/> Other Revised - Reperf, Acidize & Lower Tbg <input type="checkbox"/> Change of Plans <input type="checkbox"/> New Construction <input type="checkbox"/> Non-Routine Fracturing <input type="checkbox"/> Water Shut-Off <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Dispose Water

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markets and zones pertinent to this work.)*

Please see the **revised** workover procedure for work to be performed on the subject well. The well was cleaned out and encountered hard scale in the casing. Following the clean out, it was apparent that the full scope of the original procedure could not be completed. An attempt to return the well to production failed, and the well is presently shut-in.



14. I hereby certify that the foregoing is true and correct

Signed Sheila Bremer Title Environmental & Safety Analyst Date 04/17/96

(This space for Federal or State office use)

APPROVED BY tax crept Title ✓ 2/28/96 Date 9/20/96

Conditions of approval, if any: 3/17/96

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

4/23/96
8/28/96

Clean out, Perf, Acidize, Install PLE

02/28/96 MIRU Colorado Well Service Rig #33. Blow down & kill well w/50 bbls 3% KCl wtr. NDWH, NU BOP. PU & RIH w/tbg. Tag fill @ 6302'. POH w/tbg. PU & RIH w/hydrostatic bailer. CO from 6302' to 6456', bailer quit. POH above perfs. SDFN.
DC: \$6,660 TC: \$6,660

02/29/96 Finish POH, empty & LD hydrostatic bailer. PU & RIH w/4¾" drag bit, ¼ stroke bailer, tag scale @ 4305', RU swivel. Drill scale 4305'-4307'. RIH. Drill scale 5268'-5278'. RIH, drill scale 5635'-5700'. RD swivel. POH to bailer. SDFN.
DC: \$4,100 TC: \$10,760

03/01/96 LD stroke bailer & bit. RIH w/tbg, tag fill @ 6429', land tbg @ 6419'. RU B-J, pump 30 bbls 3% KCl wtr. Spot 2000 gal 15% HCl across perfs - circ 15± BW to pit. Let acid soak 3 hrs, circ out, spent acid & sand from 6429' to CIBP @ 6500'. POH w/tbg. SDFN.
DC: \$7,340 TC: \$18,100

03/02/96 LD stroke bailer & hit. RIH & broach prod tbg - 201 jts landed @ 6436' w/notched clr on btm, SN 1 jt up @ 6403' & 10' blast jt on top. ND BOP, NU WH. RD, MO & rls Colorado Well Service Rig #33. MIRU Delsco swab rig. Made 10 swab runs, rec 60 BW, IFL 2400', FFL 2700', SICP 50 psi, no blow.
DC: \$7,550 TC: \$25,650

03/03/96 SITP 25 psi, SICP 210 psi. Install plunger, run in w/swab tag fluid @ 2900'. Made 17 runs, swab back 102 bbls, 162 total, FFL 3100'. SITP 0 psi, FSICP 375 psi. SDFN.
DC: \$6,062 TC: \$31,712

03/05/96 SITP 50 psi, SICP 800 psi. Tag fluid @ 4100'. Made 4 swab runs, try plunger after the next 2 runs. Flow well the next run 30 min, died. Flow 2 out of the last 3 runs, 30 min. FFL 3700', FTP 0 psi, FCP 500 psi. Swab 11 runs, 66 bbls, 324 total.
DC: \$1,482 TC: \$34,644

03/06/96 SITP 425 psi, SICP 775 psi. IFL 4100', flow's strong after each run. Trying plunger now & then, well flow's less time each time w/csg. Pressure coming down. Made 10 total swab runs, swab back 55 bbls, 379 bbls total. FTP 0 psi, FCP 400 psi, FFL 4800'.
DC: \$1,376 TC: \$36,020

03/07/96 SITP 150 psi, SICP 725 psi. IFL 4200', made one swab run, drop plunger. Set to swab w/plunger, made 4 runs selling 5 min each run. Never made run #5, run in w/swabber. Tag fluid @ 5100', kill well off, set plunger to swab. FCP 600 psi, FTP 300 psi. Swab 12 bbls w/rig 391 total. Flowing 45 MMCF, 10 BW, 600 TP, 650 CP, on 14/64" chk. 2 hrs flow.
DC: \$1,292 TC: \$37,312

03/08/96 SITP 50 psi, SICP 710 psi, IFL 4000'. Made 1 swab run, set plunger to swab. Watch 3 runs, rls swabers. FTP 300 psi, FCP 757 psi, swab 6 bbls w/rig. 347 total. Flowing 10 MMCF, 30 BW, 50 TP, 450 CP, on 14/64" chk. 1 hr flow.
DC: \$1,110 TC: \$38,422

03/09/96 SITP 50 psi, SICP 750 psi. Made 1 swab run, plunger didn't come up. Made 1 more swab run. Plunger didn't come up. RU OS & pull stuck plunger on btm. Made two more swab run. CP went to 500 psi & plunger quit working. 40 bbls recovered. SFL 4000', FFL 4700'. SI to build press. Flowing 2 MMCF, 10 BW, 475 TP, 575 CP, on 8/64" chk. 20 hrs flow.
DC: \$920 TC: \$39,342

03/10/96 SITP 50 psi, SICP 700 psi. Made 1 swab run. Rec 5 bbls, SFL 4300', Put on production @ 9:30 am. 50 TP, 750 CP. Logged off.
DC: \$555 TC: \$39,892

03/11/96 SITP 0 psi, SICP 700 psi. Got to loc & found piece of wire in B-vlv. Let tbg blow, died, made 1 swab run. Put well back on prod @ 11:00 am. Flowing 5 MMCF, 20 BW, 0 TP, 720 CP, on 12/64" chk. Plunger 23 hrs.
DC: \$743 TC: \$40,635

03/12/96	Flowing 0 MMCF, 25 BW, 325 TP, 525 CP, on 30/64" chk.	
03/13/96	Flowing 0 MMCF, 20 BW, 25 TP, 625 CP.	
03/14/96	Flowing 0 MMCF, 25 BW, 75 TP, 675 CP.	
03/15/96	SI to build pressure.	
03/16/96	SI to build pressure.	
03/17-18/96	<u>Drop from report until further activity</u>	
04/23/96	MIRU Colorado Well Service Rig #26. Blow down & kill well w/40 bbls 3% KCl wtr. ND WH, NU BOP. RIH w/tbg, tag fill @ 6470'. POH w/tbg. PU & RIH w/4 3/4" drag bit & stroke bailer. CO sand from 6470' to CIBP @ 6500'. POH & LD bailer. RU Cutters WLS. Perf 12 intervals 4376'-6432' 4 SPF 2/4" csg gun. RD WL. SDFN. DC: \$9,050	TC: \$50,685
04/24/96	250 psi CP. Bleed off. PU RIH. RBP and pkr, set RBP @ 4600', pkr @ 4300'. Pump 7 bbls 15% KCl + additives 320# . 0.8 BPM. Rls pkr. PU RBP - reset @ 5350' pkr @ 4900', pump 20 bbls 15%. Rls pkr, PU RBP, reset @ 5850', set pkr @ 5350', pump 11 bbls 15%. Rls pkr, PU RBP, reset pkr @ 6350' - pump 7 bbls 8% HCl - Rls pkr, POH & reset pkr @ 4300'. Ru Swab, pull 3 runs, line part on 4th run. FL @ 2700' - Recovered 18 bbls, much acid - Pour new rope socket. Start swab again FL 2700', pull 6 runs from 4150' - rec 30 bbls, total recovered 48 bbls. 66 LTR. SDFN. DC: \$9,289	TC: \$62,834
04/25/96	625 psi SITP, bleed off rast. RIH swab, tag @ 2700', pull 18 swab runs, rec 25 bbls. Rls pkr and POH pkr and plug. RIH prod string, notch clr, SN 201 jts, broach tbg in hole. Land in donut - SN @ 6400±, EOT @ 6432' - RD BOPs, RU tree - RD and rls Colorado Well Service Rig #6. DC: \$3,204	TC: \$66,028
04/26/96	MO Colorado Well Service Rig #26. MI Delco, Tag fluid @ 3800', TP 0 psi, CP 450 psi. Made 19 runs, well flowed 20 min. Drop plunger, no arrival. Make one more swab run. SIFN. FFL 4500', FCP 600, FTP 0 psi. Swab back 120 bbls. DC: \$1,642	TC: \$67,670
04/27/96	SITP 2.5 psi, SICP 800 psi. Blow right down, tag fluid @ 3800'. Made 2 swab runs, flowed 30 min, died. 2 more runs, well flowed, try plunger, no arrival. Made 9 more runs 30 min. Flow after each run. Swab back 57 bbls. FFL 5200', FTP 0 psi, FCP 400 psi. Swab 177 total. DC: \$1,657	TC: \$69,327
04/28/96	SITP 100 psi, SICP 750 psi, IFL 4400'. Made 1 swab. Run - kicked well off. Put on production 9am. Made 3 plunger, runs sold 31 MMCF, logged off. Well quit. Got down to 460 psi. DC: \$1,132	TC: \$70,459
04/29/96	SITP 0 psi, SICP 750 psi. IFL 4500'. Made one run, kick well off. Made 2 plunger runs. Sent swabber home. Catch plunger, set to blow 6 hrs - to pit, sell 3 hrs, well dead & logged off. DC: \$878	TC: \$71,337
04/30/96	ITP 0 psi, ICP 750 psi, IFL 4500'. Made 3 runs, flow 20-30 after each run. Dropped 8 soap sticks and put 4 gal down back side. SI for build up. <u>Dropped until further activity</u> DC: \$1,108	TC: \$72,445
07/16/96	RU Delsco WL Unit, CP 825 psi, equilibize well. Run in retrieve plunger stdg vlv. Run in w/clr stop, set @ 5056'. Run in w/28" perf gun, shoot 4 holes from 5056'-5058'. Run in & PU clr stop & set @ 5028' & drop bumper spring & plunger and open well to separator. FL 4600'. DC: \$1,457	TC: \$1,457

07/17/96 RU Delsco Swab Rig. TP 50 psi, CP 875 psi. Made 1 swab, run from 2700'-5000'. Well flowing. Put well to separator & RD Swab rig. Flowing 95 MMCF, 50 BW, 275 TP, 610 CP, on 30/64" chk.
DC: \$868 TC: \$2,325

07/18/96 Flowing 95 MMCF, 50 BW, 275 TP, 610 CP, on 30/64" chk.

07/19/96 Flowing 50 MMCF, 40 BW, 300 TP, 550 CP, on 20/64" chk.

07/20/96 Flowing 26 MMCF, 40 BW, 275 TP, 400 CP, on 30/64" chk.

07/21/96 Flowing 26/44 MMCF, 30 BW, 300 TP, 425 CP, on 15/64" chk. Plunger 17 hrs.

07/22/96 Flowing 44 MMCF, 40 BW, 290 TP, 425 CP, on 30/64" chk.

07/23/96 Flowing 72 MMCF, 30 BW, 400 TP, 500 CP, on 30/64" chk.

07/24/96 Flowing 72 MMCF, 20 BW, 475 TP, 550 CP, on 30/64" chk.

07/25/96 Flowing 85 MMCF, 20 BW, 310 TP, 500 CP, on 48/64" chk.

07/26/96 Flowing 62 MMCF, 20 BW, 475 TP, 510 CP, on 20/64" chk.

07/27/96 Flowing 62 MMCF, 20 BW, 260 TP, 510 CP, on 30/64" chk. Logged off.

07/28/96 Flowing 12 MMCF, 60 BW, 265 TP, 375 CP, on 30/64" chk.

07/29/96 Flowing 61 MMCF, 120 BW, 280 TP, 375 CP, on 30/64" chk. PL 3.5

07/30/96 Flowing 55 MMCF, 60 BW, 265 TP, 375 CP, on 20/64" chk.

07/31/96 Flowing 59 MMCF, 60 BW, 265 TP, 375 CP, on 30/64" chk.

08/01/96 Flowing 50 MMCF, 60 BW, 265 TP, 375 CP, on 30/64" chk.

08/02/96 Flowing 50 MMCF, 60 BW, 265 TP, 375 CP, on 30/64" chk.

08/03/96 Flowing 40 MMCF, 40 BW, 290 TP, 400 CP, on 30/64" chk.

08/04/96 Flowing 12 MMCF, 60 BW, 290 TP, 340 CP, on 30/64" chk.

08/05/96 Flowing 12 MMCF, 50 BW, 360 TP, 425 CP, on 30/64" chk.

08/06/96 Flowing 68 MMCF, 50 BW, 360 TP, 425 CP, on 30/64" chk.

08/07/96 Flowing 73 MMCF, 50 BW, 360 TP, 450 CP, on 30/64" chk.

08/08/96 Flowing 73 MMCF, 50 BW, 325 TP, 400 CP, on 30/64" chk.

08/09/96 Flowing 60 MMCF, 50 BW, 290 TP, 450 CP, on 30/64" chk.

08/10/96 Flowing 51 MMCF, 60 BW, 279 TP, 450 CP, on 30/64" chk.

08/11/96 Flowing 51 MMCF, 60 BW, 280 TP, 450 CP, on 30/64" chk.

08/12/96 Flowing 51 MMCF, 60 BW, 275 TP, 420 CP, on 30/64" chk.

08/13/96 Flowing 50 MMCF, 60 BW, 400 TP, 470 CP, on 30/64" chk.

08/14/96 Flowing 55 MMCF, 60 BW, 240 TP, 400 CP, on 30/64" chk.

08/15/96 Flowing 55 MMCF, 40 BW, 320 TP, 440 CP, on 30/64" chk.

08/16/96	Flowing 54 MMCF, 60 BW, 360 TP, 435 CP, on 30/64" chk.
08/17/96	Flowing 55 MMCF, 60 BW, 260 TP, 475 CP, on full chk.
08/18/96	Flowing 55 MMCF, 40 BW, 275 TP, 375 CP, on 30/64" chk.
08/19/96	Flowing 54 MMCF, 40 BW, 275 TP, 375 CP, on 30/64" chk.
08/20/96	Flowing 55 MMCF, 40 BW, 350 TP, 450 CP, on 30/64" chk.
08/21/96	Flowing 12 MMCF, 50 BW, 280 TP, 325 CP, on 30/64" chk.
08/22/96	Flowing 55 MMCF, 40 BW, 350 TP, 450 CP, on 30/64" chk.
08/23/96	Flowing 12 MMCF, 50 BW, 325 TP, 375 CP, on 30/64" chk.
08/24/96	Flowing 45 MMCF, 50 BW, 300 TP, 375 CP, on 30/64" chk.
08/25/96	Flowing 24 MMCF, 50 BW, 360 TP, 360 CP, on 30/64" chk.
08/26/96	Flowing 27 MMCF, 50 BW, 175 TP, 350 CP, on 30/64" chk.
08/27/96	Flowing 4 MMCF, 20 BW, 300 TP, 350 CP, on 30/64" chk.
08/28/96	Flowing 4 MMCF, 30 BW, 350 TP, 325 CP, on 30/64" chk.
08/29/96	
08/30/96	
08/31/96	
09/01/96	
09/02/96	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

**999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2486**

RADIOACTIVE TRACER SURVEY
January 22, 1999

Maureen,

This is what

*we are doing on
the 1-14C6*

PURPOSE:

The purpose of this document is to provide a guideline for the acquisition of a radioactive tracer survey (RATS), a procedure that may be used to determine whether injected fluids may migrate vertically outside the casing after injection. This guidance may be used to develop a well-specific survey plan that accounts for specific well construction and operation considerations. Prior approval of planned RATS procedures by EPA is strongly recommended.

Radioactive Tracer Survey results must be documented with service company and other appropriate log records and/or charts, and the test should be witnessed by an EPA inspector. Arrangements may be made by contacting EPA Region 8 Underground Injection Control (UIC) offices using the EPA toll-free number 1-800-227-8917 (ask for extension 6155 or 6137).

RECORDING GUIDELINES

The logging must be done while the well is **injecting at normal injection pressure and rate**. The pressure and rate should be brought to equilibrium conditions prior to conducting the survey.

The survey tool must **include a collar locator** for depth control, an injector, and two detectors (one above and one below the injector).

Vertical log scale may be one inch, two inches, or five inches per 100 feet.

The Gamma Ray log may be run at up to 60 feet per minute (ft/min) at a time constant (TC) of one second, or up to 30 ft/min at a TC of 2 seconds, or up to 15 ft/min at a TC of 4 seconds. **The logging speed and time constant used must be indicated on the log heading.**

The horizontal log scale must be recorded in standard API Units (or in counts per second).

The **gamma ray (GR) sensitivity** must be set so that the tracer will be obvious when detected and will not be confused with normal "hot spots" in the logged formations (e.g., the gamma ray sensitivity set so that the lithology can be correlated by recording a "base log").

Record the beginning and ending clock times of each log pass.

Record the injection pressure and rate during each log pass.

Record the volume of fluid injected BETWEEN log passes.

Record the type, volume, and concentration of each tracer "slug" used.

Show the percentage of fluid loss across the perforated interval(s).



Printed on Recycled Paper

RECOMMENDED PROCEDURE:

With the GR sensitivity set for the lithologic correlation log as outlined above, run one "base log" from the injection zone to at least 500 feet above the injection zone (or at least 200 feet above the top of the confining zone).

Commence operating the well at normal operating injection pressure and rate, and continue to do so until the pressure and rate become stabilized.

Set the tool so that the injector is positioned just below the tubing packer and inject a "slug" of tracer.

Reduce the GR sensitivity enough to keep the entire slug of the tracer radiation within the width of the chart paper (horizontal scale). To do this, a non-recorded pass through the slug may be run.

Drop tool to an appropriate depth below the slug and record Log Pass #1. Log to above the upper interface until the radiation level returns to the same level as below the slug. Drop tool to the appropriate depth below the slug and record Log Pass # 2 in the same manner as #1.

Repeat log passes process until the tracer slug strength dissipates to one tenth (1/10) of original strength (on Log Pass #1). At this point, reset (increase) the GR sensitivity to the same settings used for the base log, and log from the injection zone to at least 500 feet above the injection zone (or at least 200 feet above the top of the confining zone).

Drop tool to an appropriate depth below the slug, reset (reduce) the GR sensitivity to that used for logging (same setting as Log Pass #1), and record a log pass up to the packer. Repeat this logging process until the tracer slug is gone or has completely stopped. Then reset (increase) the GR sensitivity back to the base log setting and make a final logging pass from the injection zone to at least 500 feet above the injection zone (or at least 200 feet above the top of the confining zone). This final pass should show a close similarity to the pre-test base log response. NOTE: More than one pass may be shown on a log segment as long as each separate GR curve with its corresponding collar locator are distinguishable, otherwise record each pass on a separate log segment.

Drop and set the tool at the depth where the bottom detector is just above the uppermost perforation and inject a slug of tracer (the tool remains stationary for this logging record). As the slug moves past the bottom detector, the log trace should show an increase in the GR response. Hold the tool at this depth while pumping at the equilibrium pressure and rate.

SUBMITTING THE RESULTS:

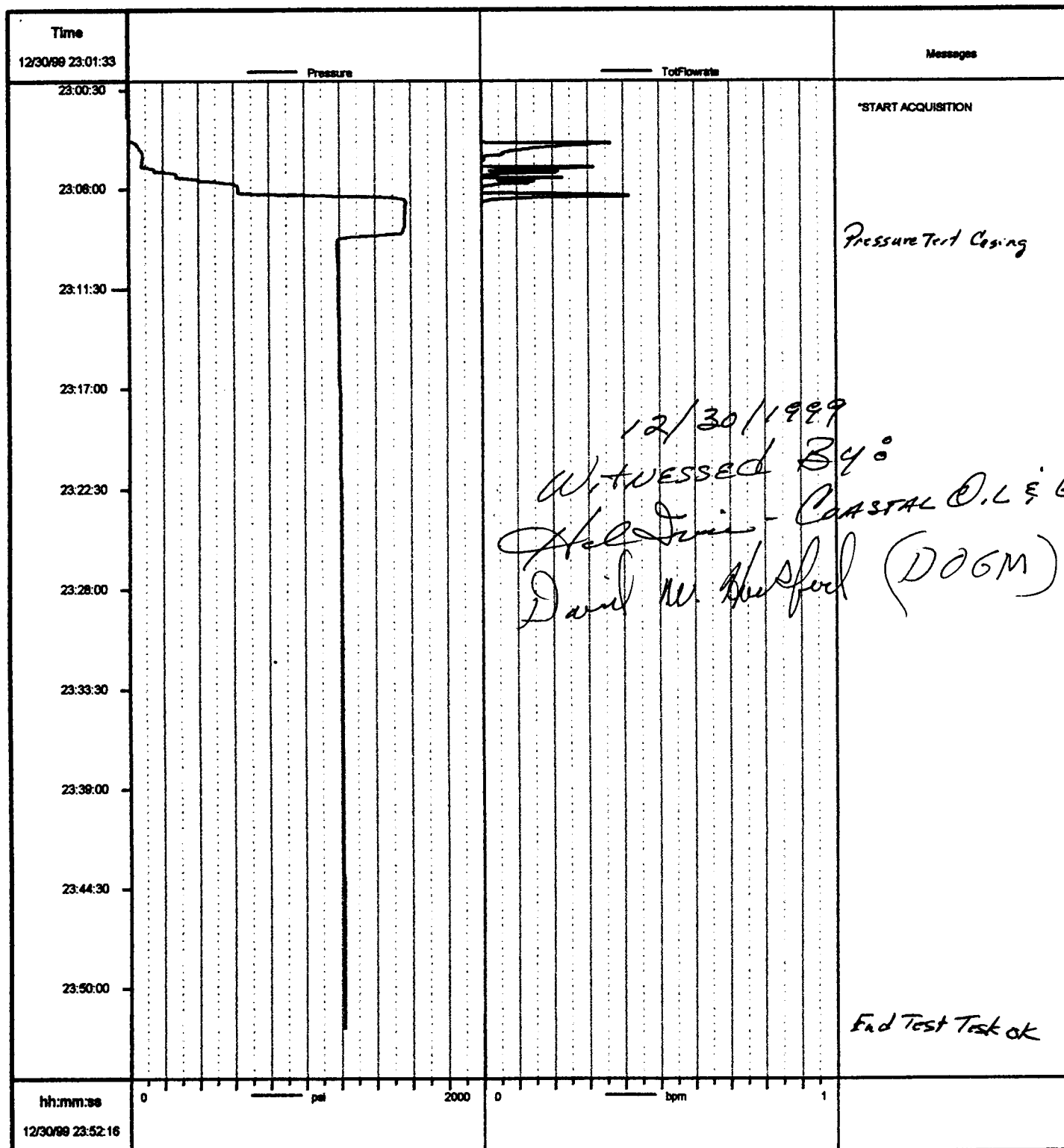
An interpretation of the logging results must be supplied when submitting the data for EPA approval. The interpretation must include a fluid loss profile across the perforations, in increments of at least 25%

Include a schematic diagram of the well construction on or with the log. The diagram should show the casing diameters and depths, tubing diameter and depth, perforated interval, any open hole intervals, tot depth or plugged back total depth, and the location of the tool when the slug was injected. Also, indicate with arrows the pathway(s) the tracer slug appears to have gone.

H:\UIC\RBUIC-Guidance\INFO-RATS.wpd

David W. McFarland (DWM)

Well	NBU 205 SWD	Client	Coastal
Field	Ouray	SIR No.	1503-3284
Country	USA	Job Date	12/30/99 11:01:33 AM



Job: vus3284

12/31/1999 00:17

OPERATOR Coastal Oil & Gas Corporation
ADDRESS P. O. Box 749
Denver, Colorado 80201-0749

Comments:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

FORM APPROVED
Budget Bureau No. 1004-0135
Expires July 31, 1996

5. Lease Serial No.

U-01196-D

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
Natural Buttes Unit

8. Well Name and No.
NBU 205

9. API Well No.
43-047-32344

10. Field and Pool, or Exploratory Area

Natural Buttes Field

11. County or Parish, State
Uintah Utah

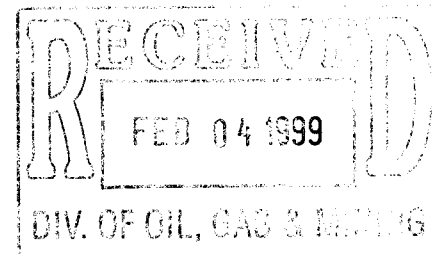
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input checked="" type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Please see the attached procedure to convert the subject well to injection.

Note: Appropriate UIC applications have been filed with the appropriate agencies.



14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Sheila Bremer

Title

Environmental & Safety Analyst

Date 1/29/99

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

NBU 205 - SWDW Conversion

NW SE Section 9-10S-22E

Uintah County, UT

January 13, 1999

ELEVATION: 5213' GL; 5228' KB
TOTAL DEPTH: 7263' PBDT: 7206' (6281' - 10/3/95 SLM)
CASING: 8", 24#, K-55 ST&C set @ 271'
5½", 17#, J-55 set @ 7263'
TUBING: Current - 2-3/8" 4.7# @ 4328'
Proposed - 2-7/8", 6.5#, N-80 plastic-lined tubing @ 1400'
PERFORATIONS: Current - 4376'-6432' 12 holes
Proposed - 1522'-1620' 156 holes

PROCEDURE:

1. MIRU pulling unit. Control well. ND WH, NU BOP's. POOH w/2" tbg.
2. RU W/L. Run CBL 1600' to surface.
3. Set CICR at 4200'. TIH w/tbg. Sting into retainer and establish injection rate. Cement squeeze Wasatch perms 4376-6432' w/275 sxs class G w/0.5% FLAC (1.15 ft³/sk, 15.8 ppg, 4.98 gal H₂O/sk). Spot last 10 sxs on top of CICR. Reverse circulate excess f/well.
4. POOH L/D all but 2000' of tubing. Set CIBP at 2500'. Dump bail 2 sx cement on CIBP. **Perforate Trona member of Upper Green River formation 1522-32', 1540-50', 1560-70', 1610-20' (GR/CBL 10/13/92) w/4" casing gun 3 spf 120 phasing.** Swab well for water sample & test salinity. Run injection step-rate test. If less than 1 bpm at 100 psi, plan to acidize tomorrow.
5. If necessary, TIH to bottom perf and spot 500 gal 15% HCl w/additives. PU above perms and acidize w/an additional 1500 gal 15% HCl w/ additives. Swab ball sealers off perms. Rerun injection step-rate test. (Run static bottom-hole pressure if stipulated by EPA or state of Utah). POOH and L/D tubing.
6. PU 5-1/2" 17# Arrowset I-X injection packer w/teflon internal coating and 2-7/8" J-55 6.4#/ft tubing w/Duoline 10 lining (2.2" ID). Circulate packer fluid (0.5% Techni-Hib and 1 gal Alta 133 biocide) prior to setting packer. Set packer at 1400'. Test tbg/csg annulus to 1000 psi.
7. ND BOP's/NU tree. RDMO PU.
8. Install surface facilities (similar to NBU 159 SWD) and connect gas supply.
3-500 bbls tanks w/stairs
Line Heater
J-60L Triplex w/building
Gas supply f/UT 83x or NBU 206

NBU 205 SWDW
Section 9-10S-22E
NBU Field
Uintah Co., Utah

Current Wellbore Schematic

GL: 5213'
KB: 5228'

8-5/8" set @ 271' & cemented to surface.

Top down cement job pumped 10/22/92

Primary cement top at 1570' 10/13/92

Well is Shut-In: Uneconomic

Perfs 4376-6436'
1 spf 12 holes

2-3/8" tubing @ 6436' w/SN @ 6402'

CIBP @ 6500' set 10/92

Perfs 6550-7078'

PBTD 7206'

5-1/2" 17# N-80 @ 7263'

10/19/98 twh

NBU 205 SWDW
Section 9-10S-22E
 NBU Field
 Uintah Co., Utah

Proposed Wellbore Schematic

GL: 5213'
 KB: 5228'

8-5/8" set @ 271' & cemented to surface.

Top down cement job pumped 10/22/92

2-7/8" 6.5# N-80 EUE plastic-lined tubing w/pkr @ 1400'

Primary cement top at 1570' 10/13/92

CIBP @ 1900'

CICR @ +/-4200' w/10 sx cement on top

Proposed Perfs 1522-32'
 1540-50'
 1560-70'
 1610-20'

Perfs 4376-6436'
 1 spf 12 holes
 Squeezed w/240 sx

Perfs 6550-7078'

CIBP @ 6500' set 10/92

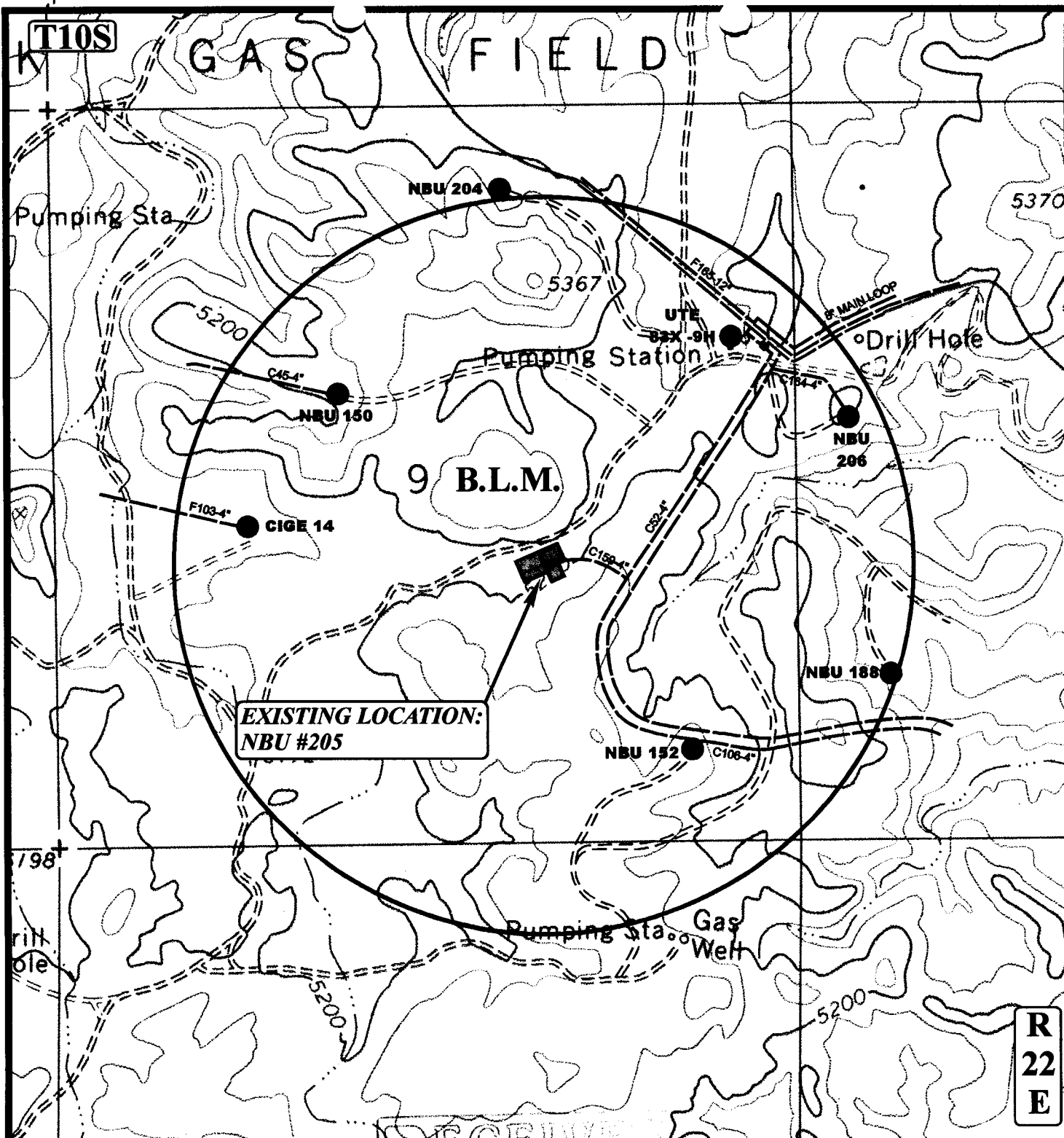
PBTD 7206'

5-1/2" 17# N-80 @ 7263'

G. GEOLOGIC DATA ON INJECTION AND CONFINING ZONES (CLASS II)

Injection will be limited to the gross Bird's Nest zone (local name) of the Parachute Creek member of the Green River Formation. The injection zone will be from 1510' to 1655'. The permittee may find it necessary to perforate additional intervals within the gross interval. These additions may be added later and will be reported on EPA Form 7520-12.

The Bird's Nest zone sands, which extend over a 145' interval, are individually separated by calcareous shales which act as isolation barriers/confining zones for injected fluids. The Uintah Formation extends from the surface to 1470' (**upper confining zone**), and is composed of interbedded thick impervious confining shales, thinner marls and siltstones, and thin sand stringers. This lithology should provide an effective barrier to upward movement of injected fluids. In addition, the conversion of the subject well will include a surface to 1570' cement plug in the annulus between well casing and formation above the top perforated interval



LEGEND:

- ===== EXISTING ROAD
- EXISTING 12" PIPELINE
- EXISTING 10" PIPELINE
- EXISTING 8" PIPELINE
- EXISTING 6" PIPELINE
- EXISTING 4" PIPELINE
- EXISTING WELL LOCATION

COASTAL OIL & GAS CORP

NBU #205

SECTION 9, T10S, R22E, S.L.B.&M.

1981' FSL 1808' FEL

FEB 04 1999

N

DIV. OF OIL, GAS & MINING



Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

**AFFIDAVIT OF
 SURFACE INSPECTION**

10 21 98
 MONTH DAY YEAR

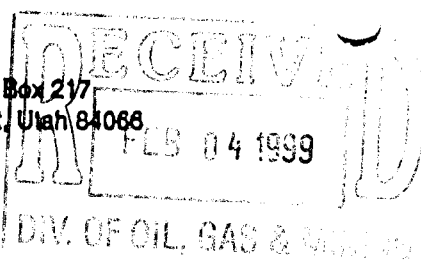
SCALE: 1" = 1000' DRAWN BY: D.COX REVISED: 00-00-00

1
 TOPO

UNICHEM

A Division of BJ Services

P.O. Box 217
Roosevelt, Utah 84068



Mesa Verde/Wasatch

Office (435) 722-5066

Fax (435) 722-6727

WATER ANALYSIS REPORT

Company Coastal Address _____ Date 10-28-98

Source Conoco Mt. Lion 34-2 Date Sampled 10-22-98 Analysis No. _____
Mesa Verde/Wasatch

	Analysis	mg/l(ppm)	*Mg/l
1. PH	<u>7.3</u>		
2. H ₂ S (Qualitative)	<u>.5</u>		
3. Specific Gravity	<u>1.020</u>		
4. Dissolved Solids		<u>23,770</u>	
5. Alkalinity (CaCO ₃)	CO ₃	<u>0</u>	+ 30 <u>0</u> CO ₃
6. Bicarbonate (HCO ₃)	HCO ₃	<u>490</u>	+ 81 <u>8</u> HCO ₃
7. Hydroxyl (OH)	OH	<u>0</u>	+ 17 <u>0</u> OH
8. Chlorides (Cl)	Cl	<u>14,200</u>	+ 35.5 <u>399</u> Cl
9. Sulfates (SO ₄)	SO ₄	<u>0</u>	+ 48 <u>0</u> SO ₄
10. Calcium (Ca)	Ca	<u>800</u>	+ 20 <u>40</u> Ca
11. Magnesium (Mg)	Mg	<u>122</u>	+ 12.2 <u>10</u> Mg
12. Total Hardness (CaCO ₃)		<u>2,500</u>	
13. Total Iron (Fe)		<u>16</u>	
14. Manganese		<u>1.3</u>	
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

	Compound	Eqvly. Wt.	X	Mg/l	=	Mg/l
40	Ca(HCO ₃) ₂	81.04	<u>8</u>			648
	CaSO ₄	88.07				
10	CaCl ₂	55.50	<u>32</u>			1,776
	Mg(HCO ₃) ₂	73.17				
	MgSO ₄	60.19				
	MgCl ₂	47.62	<u>10</u>			476
	NaHCO ₃	84.00				
	Na ₂ SO ₄	71.03				
	NaCl	58.46	<u>357</u>			20,870

Saturation Values

Distilled Water 20°C

CaCO₃

13 Mg/l

CaSO₄ · 2H₂O

2,090 Mg/l

MgCO₃

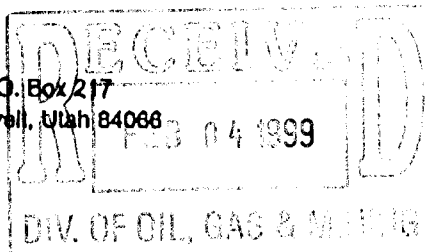
103 Mg/l

REMARKS Solids; Paraffin 25%, CaCO₃ 61%, Fe 14%

UNICHEM

A Division of BJ Services

P.O. Box 217
Roosevelt, Utah 84066



Wasatch
Office (435) 722-5088
Fax (435) 722-5727

WATER ANALYSIS REPORT

Company Coastal Address _____ Date 10-28-98

Source Conoco Jenks 5-11 Date Sampled 10-22-98 Analysis No. _____
Wasatch

	Analysis	mg/l(ppm)	*Meg/l
1. PH	<u>6.0</u>		
2. H ₂ S (Qualitative)	<u>.5</u>		
3. Specific Gravity	<u>1.004</u>		
4. Dissolved Solids	<u>1,309</u>		
5. Alkalinity (CaCO ₃)	CO ₃ <u>0</u>	÷ 30 <u>0</u>	CO ₃
6. Bicarbonate (HCO ₃)	HCO ₃ <u>120</u>	÷ 61 <u>2</u>	HCO ₃
7. Hydroxyl (OH)	OH <u>0</u>	÷ 17 <u>0</u>	OH
8. Chlorides (Cl)	Cl <u>700</u>	÷ 35.5 <u>20</u>	Cl
9. Sulfates (SO ₄)	SO ₄ <u>0</u>	÷ 48 <u>0</u>	SO ₄
10. Calcium (Ca)	Ca <u>40</u>	÷ 20 <u>2</u>	Ca
11. Magnesium (Mg)	Mg <u>19</u>	÷ 12.2 <u>2</u>	Mg
12. Total Hardness (CaCO ₃)	<u>180</u>		
13. Total Iron (Fe)	<u>50.0</u>		
14. Manganese	<u>1.1</u>		
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

2	Ca	←	HCO ₃	2
2	Mg	→	SO ₄	0
18	Na	→	Cl	20

Compound	Eqvly. Wt.	X	Meg/l	=	Mg/l
Ca(HCO ₃) ₂	81.04	<u>2</u>			<u>162</u>
CaSO ₄	88.07				
CaCl ₂	55.50				
Mg(HCO ₃) ₂	73.17				
MgSO ₄	60.19				
MgCl ₂	47.62	<u>2</u>			<u>95</u>
NaHCO ₃	84.00				
Na ₂ SO ₄	71.03				
NaCl	58.46	<u>18</u>			<u>1,052</u>

Saturation Values	Distilled Water 20°C
CaCO ₃	13 Mg/l
CaSO ₄ · 2H ₂ O	2,090 Mg/l
MgCO ₃	103 Mg/l

REMARKS NH4 8

UNICHEM

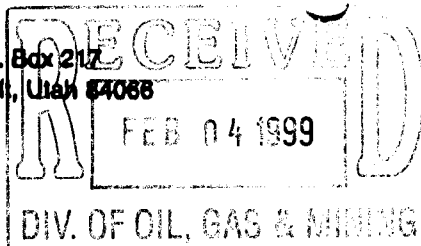
A Division of IJ Services

P.O. Box 217
Roosevelt, Utah 84068

Upr Green River

Office (435) 722-5088

Fax (435) 722-5727



WATER ANALYSIS REPORT

Company Coastal Address _____ Date 10-28-98

Source Conoco Tribal 31-55A Date Sampled 10-22-98 Analysis No. _____

Upper greenriver

	Analysis	mg/l(ppm)	*Meg/l
1. PH	<u>8.8</u>		
2. H ₂ S (Qualitative)	<u>6.0</u>		
3. Specific Gravity	<u>1.024</u>		
4. Dissolved Solids		<u>36,953</u>	
5. Alkalinity (CaCO ₃)	CO ₃	<u>240</u>	+ 30 <u>8</u> CO ₃
6. Bicarbonate (HCO ₃)	HCO ₃	<u>7,600</u>	+ 61 <u>124</u> HCO ₃
7. Hydroxyl (OH)	OH	<u>0</u>	+ 17 <u>0</u> OH
8. Chlorides (Cl)	Cl	<u>15,600</u>	+ 35.5 <u>439</u> Cl
9. Sulfates (SO ₄)	SO ₄	<u>120</u>	+ 48 <u>3</u> SO ₄
10. Calcium (Ca)	Ca	<u>80</u>	+ 20 <u>4</u> Ca
11. Magnesium (Mg)	Mg	<u>0</u>	+ 12.2 _____ Mg
12. Total Hardness (CaCO ₃)		<u>200</u>	
13. Total Iron (Fe)		<u>.7</u>	
14. Manganese		<u>0</u>	
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

	Compound	Eqv. Wt.	X	Meg/l	=	Mg/l
4	Ca(HCO ₃) ₂	81.04	<u>4</u>			<u>324</u>
0	CaSO ₄	68.07				
	CaCl ₂	55.50				
	Mg(HCO ₃) ₂	73.17				
	MgSO ₄	60.19				
	MgCl ₂	47.52				
	NaHCO ₃	84.00	<u>128</u>			<u>10,752</u>
	Na ₂ SO ₄	71.03	<u>3</u>			<u>213</u>
	NaCl	58.46	<u>439</u>			<u>25664</u>

Saturation Values

Distilled Water 20°C

CaCO₃

13 Mg/l

CaSO₄ · 2H₂O

2,090 Mg/l

MgCO₃

103 Mg/l

REMARKS _____

R649-5-2. Requirements For Class II Injection Wells Including Water Disposal, Storage And Enhanced Recovery Wells.

1. Injection wells shall be completed, equipped, operated, and maintained in a manner that will prevent pollution and damage to any USDW, or other resources and will confine injected fluids to the interval approved.

2. The application for an injection well shall include a properly completed UIC Form 1 and the following:

2.1. A plat showing the location of the injection well, all abandoned or active wells within a one-half mile radius of the proposed well, and the surface owner and the operator of any lands or producing leases, respectively, within a one-half mile radius of the proposed injection well.

2.2. Copies of electrical or radioactive logs, including gamma ray logs, for the proposed well run prior to the installation of casing and indicating resistivity, spontaneous potential, caliper, and porosity.

2.3. A copy of a cement bond or comparable log run for the proposed injection well after casing was set and cemented.

2.4. Copies of logs already on file with the division should be referenced, but need not be refiled.

2.5. A description of the casing or proposed casing program of the injection well and of the proposed method for testing the casing before use of the well.

2.6. A statement as to the type of fluid to be used for injection, its source and estimated amounts to be injected daily.

2.7. Standard laboratory analyses of (1) the fluid to be injected, (2) the fluid in the formation into which the fluid is being injected, and (3) the compatibility of the fluids.

2.8. The proposed average and maximum injection pressures.

2.9. Evidence and data to support a finding that the proposed injection well will not initiate fractures through the overlying strata or a confining interval that could enable the injected fluid or formation fluid to enter the fresh water strata.

2.10. Appropriate geological data on the injection interval and confining beds, including the geologic name, lithologic description, thickness, depth, and lateral extent; also information relative to geologic structure near the proposed well which may effect the conveyance and/or storage of the injected fluids.

2.11. A review of the mechanical condition of each well within a one-half mile radius of the proposed injection well to assure that no conduit exists that could enable fluids to migrate up or down the wellbore and enter improper intervals.

2.12. An affidavit certifying that a copy of the application has been provided to all operators, owners, and surface owners within a one-half mile radius of the proposed injection well.

2.13. Any other additional information that the board or division may determine is necessary to adequately review the application.

COMMENTS

2. OKAY, EXCEPT CROSS INJECTION ZONES +
APR 15 10 - 1655 TOP & BOTTOM
INTERVALS DON'T AGREE PARO 1522-1620 OR INJECT ZONE

2.1 EXHIBIT A IS LACKING OWNERSHIP OF
SEC. 16. THE MAP DOES NOT ADEQUATELY IDENTIFY
SURFACE BOUNDARIES.

2.2 SEE NO. 24 BELOW

2.3 SUPPLIED

2.4 ON FILE WITH STATE MICROFICHE

2.5 CASING SIZES & GRADES ON RECOMPLETION NO
MIT PROPOSED IN THE COMPLETION PROCESS

2.6 OKAY

2.7 OKAY

2.8 OKAY

2.9 ? STEP RATE TEST WILL SUPPLY
THIS INFO.

OK 2.10 NO STRUCTURE, CROSS SECTION ON FENCE
DIAGRAM IS WRITE UP SUFFICIENT? NO MAP
WITH GEOLOGIC FORMATION TOPS OR MEMBERS.

2.11 NO REVIEW

2.12

2.13 OKAY

INJECTION WELL APPLICATION

REVIEW SUMMARY

Applicant: COASTAL OIL & GAS Well: NBU #205

Location: section NWSE 9 township 10 S range 22E

API #: 43-DH7-32344 Well Type: disp. ☒ enhanced recov. ☐

If enhanced recovery has project been approved by the Board ? ☐

Lease Type: FED U-D1196-D Surface Ownership: BUREAU OF LAND MANAGEMENT

Field: NATURAL BUTTES (630) Unit: NATURAL BUTTES Indian Country: No

UIC Form 1: Yes Plat: Y Wells in AOR: YER

Logs Available: Yes Bond Log: Yes

Casing Program: 8" 24# K55 ST&C SET TO 271', 5 1/2 17#
J55 SET AT 7263' PERFOR AT 4376-6432

-

Integrity Test: WILL BE CONDUCTED

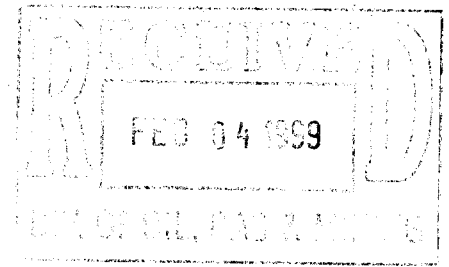
Injection Fluid: LAB ANALYSIS SUPPLIED (PRODUCED WATER)

Geologic Information: GREEN RIVER FORMATION TADONIA
MEMBER 1522-1570 BIRD'S NEST (PARACHUTE CREEK)

Analyses of Injection Fluid: ☒ Formation Fluid: ☒ Compat. ☐

Fracture Gradient Information: 0.65 PSI/FOOT ^{PROJECTED} Parting Pressure

Affidavit of Notice to Owners: Y



UNDERGROUND INJECTION CONTROL

PERMIT APPLICATION

**NBU #205
NW/SE Section 9 - T10S - R22E
Uintah County, Utah**

January 15, 1999

Prepared for:

*Ms. Sheila Bremer
Environmental and Safety Analyst
Coastal Oil & Gas Corporation
600 17th Street
Suite 800 South
Denver, Colorado 80201*

Prepared by:

**BUYS & ASSOCIATES, INC.
8000 South Lincoln, Suite 10-2
Littleton, Colorado 80122
(303) 730-2500
FAX (303) 730-2522**


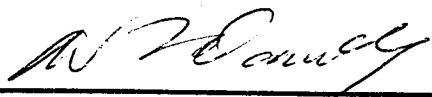
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EXHIBITS

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Exhibit B - Affidavit of Surface Inspection	9
Exhibit E - Well Log Copies	attached pocket
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Exhibit M - Well Data and History	11
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Exhibit V1 - Affidavit of Surface Inspection - 1/2 Mile Radius	20

Form 4 UIC		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY		I. EPA ID NUMBER	
		UNDERGROUND INJECTION CONTROL PERMIT APPLICATION			
		(Collected under the authority of the Safe Drinking Water Act, Sections 1421, 1422, 40 CFR 144)		T/A C	
READ ATTACHED INSTRUCTIONS BEFORE STARTING FOR OFFICIAL USE ONLY					
Application approved mo day year		Date Received mo day year		Permit/Well Number	
				Comments	
II. FACILITY NAME AND ADDRESS				III. OWNER/OPERATOR AND ADDRESS	
Facility Name NBU #205				Owner/Operator Name Coastal Oil and Gas Corporation	
Street Address NW/SE 9-10S-22E				Street Address 600 17th Street, Suite 800 South	
City Uintah County		State Utah	ZIP Code	City Denver	State Co
IV. OWNERSHIP STATUS (Mark 'x')				V. SIC CODES	
<input checked="" type="checkbox"/> A. Federal <input type="checkbox"/> B. State <input type="checkbox"/> C. Private				1311	
<input type="checkbox"/> D. Public <input type="checkbox"/> E. Other (Explain)					
VI. WELL STATUS (Mark 'x')					
<input type="checkbox"/> A. Operating		Date Started mo day year		<input checked="" type="checkbox"/> B. Modification/Conversion <input type="checkbox"/> C. Proposed	
VII. TYPE OF PERMIT REQUESTED (Mark 'x' and specify if required)					
<input checked="" type="checkbox"/> A. Individual <input type="checkbox"/> B. Area		Number of Existing wells	Number of Proposed wells	Name(s) of field(s) or project(s) Natural Buttes Unit	
VIII. CLASS AND TYPE OF WELL (see reverse)					
A. Class(es) (enter code(s))		B. Type(s) (enter code(s))		C. If class is "other" or type is code 'x,' explain	
II		D		D. Number of wells per type (if area permit)	
IX. LOCATION OF WELL(S) OR APPROXIMATE CENTER OF FIELD OR PROJECT					
C A. Latitude		B. Longitude		Township and Range	
Deg Min Sec		Deg Min Sec		Twsp Range Sec 1/4 Sec Feet from Line Feet from Line	
1 1 1		10S 22E		9 SE 1808 E 1981 S	
X. INDIAN LANDS (Mark 'x')					
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Within Ute Tribal Boundary					
XI. ATTACHMENTS					
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions) FOR CLASSES I, II, III (and other classes) complete and submit on separate sheet(s) Attachments A — U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application:					
XII. CERTIFICATION					
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)					
A. Name and Title (Type or Print)				B. Phone No. (Area Code and No.)	
W. L. Donnelly, Vice President, Coastal Oil & Gas Corp.				303-572-1112	
C. Signature 				D. Date Signed 1/29/99	

ATTACHMENTS TO EPA UIC FORM 4

A. AREA OF REVIEW METHODS AND NOTIFICATION OF LAND OWNERS

The area of review is a fixed radius of one-quarter (1/4) mile from the wellbore. The Bureau of Land Management (BLM) is the surface and mineral rights owner of the 160 acre quarter section on which the NBU #205 is located. As per the State of Utah requirements, Exhibit A shows all property owners within a half (1/2) mile radius of the wellbore. Please note the surface owner and mineral rights owner for all lands within a half (1/2) mile of the wellbore is the BLM.

The wellbore is located within the greater boundary of Ute Tribal Lands.

B. MAPS OF WELLS AND AREA OF REVIEW

Exhibit B - Affidavit of Surface Inspection - provides topography, surface ownership, surrounding oil/gas wells, road access, and other existing surface facilities within a half (1/2) mile radius of the proposed injection well NBU #205.

C. CORRECTIVE ACTION PLAN AND WELL DATA

There are no other wells within the 1/4 mile area of review.

E. NAME AND DEPTH OF USDWs (Class II)

According to the State of Utah, Water Resource Division, database there are no water wells within the area of review. Formations above the injection zone may contain possible USDW zones.

The Bird's Nest Member of the Upper Green River Formation is the intended injection zone. Tests have not been run to determine the TDS content of the Upper Green River zones in the NBU #205. As part of the well conversion procedure, step 4 of Exhibit M1, the Trona Member will be swabbed for a water sample. The water sample will be tested for TDS and the analytical results reported to the EPA.

The proposed injection zone correlates to the injection zone in the NBU #159, located about four miles northwest of the proposed disposal well. The TDS content of the Birds Nest zone in this well varies from 23,000 mg/l to 65,000 mg/l. This TDS content disqualifies the water as an underground source of drinking water (USDW) and is, therefore, not subject to the protection afforded in 40CFR 144.7(a).

Formations below the Bird's Nest Member will be isolated by casing and cement, CICR and cement, and CIBP and cement according to Exhibits M1, M2, and M3.

See Exhibit E for well log copies (attached log pocket).

G. GEOLOGIC DATA ON INJECTION AND CONFINING ZONES (CLASS II)

Injection will be limited to the gross Bird's Nest zone (local name) of the Parachute Creek member of the Green River Formation. The injection zone will be from 1510' to 1655'. The permittee may find it necessary to perforate additional intervals within the gross interval. These additions may be added later and will be reported on EPA Form 7520-12.

The Bird's Nest zone sands, which extend over a 145' interval, are individually separated by calcareous shales which act as isolation barriers/confining zones for injected fluids. The Uintah Formation extends from the surface to 1470' (**upper confining zone**), and is composed of interbedded thick impervious confining shales, thinner marls and siltstones, and thin sand stringers. This lithology should provide an effective barrier to upward movement of injected fluids. In addition, the conversion of the subject well will include a surface to 1570' cement plug in the annulus between well casing and formation above the top perforated interval

H. OPERATING DATA

- 1) Average Daily Injection Rate = 750 BPD
 Maximum Daily Injection Rate = 2000 BPD
 Total Volume of Fluids to be Injected = 5,475,000 BBL
 (Assuming a 20 year life for the well.)
- 2) Average Injection Pressure = 200 psi
 Maximum Injection Pressure = 450 psi
- 3) Nature of Casing-Tubing Annulus Fluid: Fresh water with corrosion inhibitor or packer fluid.
- 4) Not applicable - Class I wells only.
- 5) Coastal Oil and Gas owns and operates certain oil/gas wells located in the area. Water to be injected into the NBU #205 will come from those wells. Exhibit H shows the water analyses run on these wells.
- 6) Not Applicable - Class III wells only.

I. FORMATION TESTING PROGRAM

See Exhibit M1, NBU #205 - SWDW Conversion Procedure, steps 4 and 5. Water sampling analysis and injection step rate testing will be performed.

J. STIMULATION PROGRAM

Based on results of the injection step rate test it may be necessary to stimulate the well. If needed, the proposed injection zone will be acidized with 2000 gallons of 15% HCL. Another injection step rate test will be performed.

K. INJECTION PROCEDURES

The injected fluid will be delivered to the disposal site by pipeline or truck. A Triplex pump will be used to pump fluids down the tubing into the injection zone. Pressure controllers will shut down the Triplex pump when the maximum allowable injection pressure is reached.

Water storage will consist of two 500 bbl tanks and one 500 bbl skim tank. Level controllers on the storage tanks will automatically shut down the Triplex pump at low fluid levels. Any accumulations of crude oil carryover will be removed and disposed from the skim tank.

M. CONSTRUCTION DETAILS

See Exhibit M for details on well data and history. See Exhibit M1 for a detailed conversion to injection procedure. Exhibit M2 presents the current wellbore construction schematic. Exhibit M3 details the proposed wellbore construction schematic. Exhibit M4 provides a detailed surface facility diagram.

O. PLANS FOR WELL FAILURE

In the event the well is shut-in, whether manually or automatically, Coastal will take the following steps:

- 1) Determine the nature and extent of the failure causing the shut-in.
- 2) In the event the well cannot continue to operate as stipulated by the UIC permit the well will be temporarily shut-in. If the EPA grants permission to continue operations the well will be brought back on line.
- 3) An EPA representative will be contacted to discuss the reason for well failure and to determine corrective action.
- 4) If well shut-in is imminent then injection fluids will be diverted to other authorized disposal facilities.
- 5) In the event of a need for clean up/remediation then operations will proceed in accordance with Coastal emergency response plans and in accordance with applicable rules and regulations.

P. MONITORING PROGRAM

Coastal will monitor the water quality of the injection fluids on an annual basis. Analysis will include TDS, pH, Specific conductivity and specific gravity. Any time there is a change in the source of the injection fluid a water quality analysis will be performed and submitted to the EPA for approval prior to injection disposal.

Q. PLUGGING AND ABANDONMENT PLAN

See Exhibit Q - Plugging and Abandonment Plan.

See Exhibit Q1 for the Proposed Plugging and Abandonment wellbore schematic.

R. NECESSARY RESOURCES

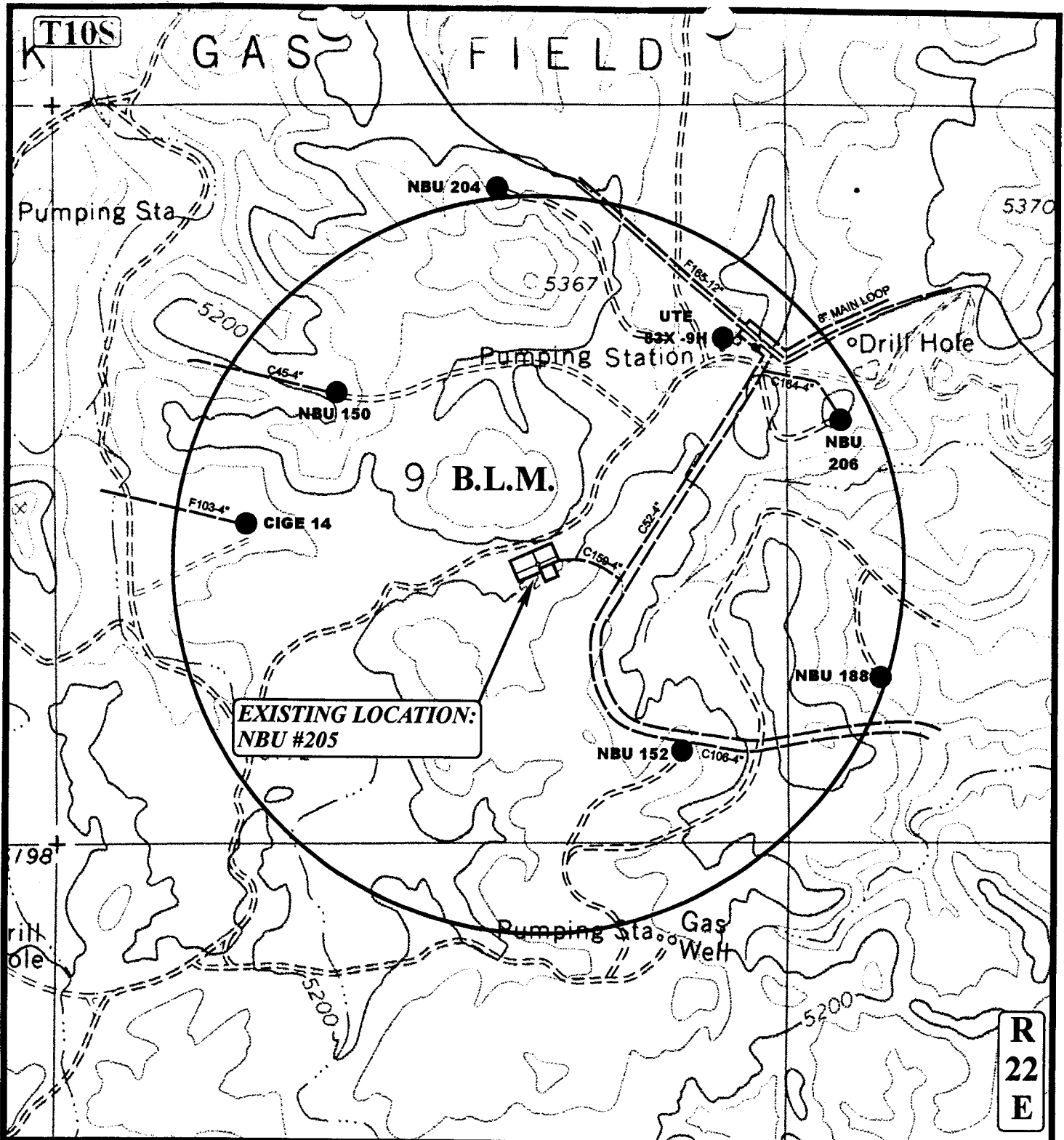
Coastal Oil & Gas Corporation has Bond # U605243-56 in place with the EPA to cover plugging and abandonment costs of appropriate SWD facilities. This bond has been amended to include the NBU #205. The new rider for this bond is being mailed directly to Judy Binegar-Wilson at the EPA. See Exhibit R.

U. DESCRIPTION OF BUSINESS

Coastal Oil & Gas Corporation is an exploration and production company of hydrocarbons.

V. STATE OF UTAH PERMIT

See Exhibit V - State of Utah, Application for Injection Well, UIC Form 1; Exhibit V1 for Affidavit of Surface Inspection - 1/2 mile radius and for surface ownership within a 1/2 mile radius.

**LEGEND:**

- ===== EXISTING ROAD
- ===== EXISTING 12" PIPELINE
- ===== EXISTING 10" PIPELINE
- ===== EXISTING 8" PIPELINE
- ===== EXISTING 6" PIPELINE
- ===== EXISTING 4" PIPELINE
- EXISTING WELL LOCATION

COASTAL OIL & GAS CORP**NBU #205**

SECTION 9, T10S, R22E, S.L.B.&M.
1981' FSL 1808' FEL

N



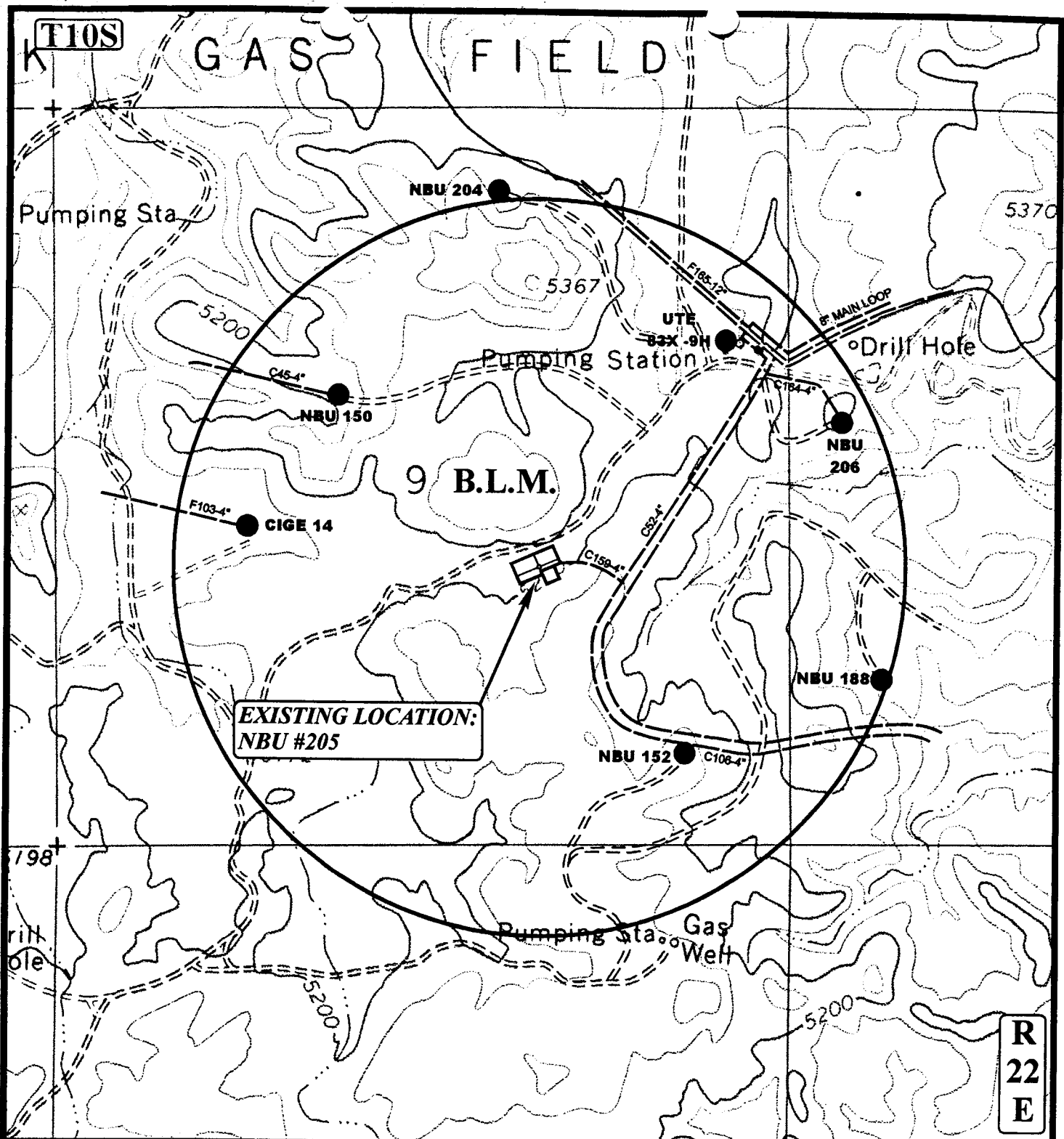
Utah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

AFFIDAVIT OF
SURFACE INSPECTION

10 **21** **98**
 MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: D.COX REVISED: 00-00-00

1
 TOPO

**LEGEND:**

- ===== EXISTING ROAD
- EXISTING 12" PIPELINE
- EXISTING 10" PIPELINE
- EXISTING 8" PIPELINE
- EXISTING 6" PIPELINE
- EXISTING 4" PIPELINE
- EXISTING WELL LOCATION

COASTAL OIL & GAS CORP**NBU #205**

SECTION 9, T10S, R22E, S.L.B.&M.
1981' FSL 1808' FEL

N



Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

**AFFIDAVIT OF
 SURFACE INSPECTION**

10 21 98
 MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: D.COX REVISED: 00-00-00

1
 TOPO

EXHIBIT H

Water Analysis of Injection Fluids

UNICHEM

A Division of BJ Services

P.O. Box 217
Roosevelt, Utah 84068

Wasatch
Office (435) 722-5066
Fax (435) 722-5727

WATER ANALYSIS REPORT

Company Coastal Address _____ Date 10-28-98

Source Conoco Jenks 5-11 Date Sampled 10-22-98 Analysis No. _____
Wasatch

	Analysis	mg/l(ppm)	*Mg/l
1. PH	<u>6.0</u>		
2. H ₂ S (Qualitative)	<u>.5</u>		
3. Specific Gravity	<u>1.004</u>		
4. Dissolved Solids	<u>1,309</u>		
5. Alkalinity (CaCO ₃)	CO ₃ <u>0</u>	÷ 30 <u>0</u>	CO ₃
6. Bicarbonate (HCO ₃)	HCO ₃ <u>120</u>	÷ 61 <u>2</u>	HCO ₃
7. Hydroxyl (OH)	OH <u>0</u>	÷ 17 <u>0</u>	OH
8. Chlorides (Cl)	Cl <u>700</u>	÷ 35.5 <u>20</u>	Cl
9. Sulfates (SO ₄)	SO ₄ <u>0</u>	÷ 48 <u>0</u>	SO ₄
10. Calcium (Ca)	Ca <u>40</u>	÷ 20 <u>2</u>	Ca
11. Magnesium (Mg)	Mg <u>19</u>	÷ 12.2 <u>2</u>	Mg
12. Total Hardness (CaCO ₃)	<u>180</u>		
13. Total Iron (Fe)	<u>50.0</u>		
14. Manganese	<u>1.1</u>		
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

Compound	Equiv. Wt.	X	Mg/l	=	Mg/l
Ca(HCO ₃) ₂	81.04	<u>2</u>	<u>162</u>		
CaSO ₄	88.07				
CaCl ₂	55.50				
Mg(HCO ₃) ₂	73.17				
MgSO ₄	60.19				
MgCl ₂	47.62	<u>2</u>	<u>95</u>		
NaHCO ₃	84.00				
Na ₂ SO ₄	71.03				
NaCl	58.46	<u>18</u>	<u>1,052</u>		

2	Ca	←	HCO ₃	2
2	Mg	→	SO ₄	0
18	Na	→	Cl	20

Saturation Values	Distilled Water 20°C
CaCO ₃	13 Mg/l
CaSO ₄ · 2H ₂ O	2,090 Mg/l
MgCO ₃	103 Mg/l

REMARKS NH4 8

WATER ANALYSIS REPORT

Company Coastal Address _____ Date 10-28-98

Source Conoco Mt. Lion 34-2 Date Sampled 10-22-98 Analysis No. _____
Mesa Verde/Wasatch

	Analysis	mg/l(ppm)	*Meg/l
1. PH	<u>7.3</u>		
2. H ₂ S (Qualitative)	<u>.5</u>		
3. Specific Gravity	<u>1.020</u>		
4. Dissolved Solids		<u>23,770</u>	
5. Alkalinity (CaCO ₃)	CO ₃	<u>0</u>	+ 30 <u>0</u> CO ₃
6. Bicarbonate (HCO ₃)	HCO ₃	<u>490</u>	+ 61 <u>8</u> HCO ₃
7. Hydroxyl (OH)	OH	<u>0</u>	+ 17 <u>0</u> OH
8. Chlorides (Cl)	Cl	<u>14,200</u>	+ 35.5 <u>399</u> Cl
9. Sulfates (SO ₄)	SO ₄	<u>0</u>	+ 48 <u>0</u> SO ₄
10. Calcium (Ca)	Ca	<u>800</u>	+ 20 <u>40</u> Ca
11. Magnesium (Mg)	Mg	<u>122</u>	+ 12.2 <u>10</u> Mg
12. Total Hardness (CaCO ₃)		<u>2,500</u>	
13. Total Iron (Fe)		<u>16</u>	
14. Manganese		<u>1.3</u>	
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

Compound	Eqvly. Wt.	X	Meg/l	=	Mg/l
Ca(HCO ₃) ₂	81.04	<u>8</u>			<u>648</u>
CaSO ₄	88.07				
CaCl ₂	55.50	<u>32</u>			<u>1,776</u>
Mg(HCO ₃) ₂	73.17				
MgSO ₄	80.19				
MgCl ₂	47.62	<u>10</u>			<u>476</u>
NaHCO ₃	84.00				
Na ₂ SO ₄	71.03				
NaCl	58.46	<u>357</u>			<u>20,870</u>

Saturation Values	Distilled Water 20°C
CaCO ₃	13 Mg/l
CaSO ₄ · 2H ₂ O	2,090 Mg/l
MgCO ₃	103 Mg/l

REMARKS Solids; Paraffin 25%, Caco3 61%, Fes 14%

UNICHEM

A Division of UJ Services

P.O. Box 217
Roosevelt, Utah 84068

Up Green River

Office (435) 722-5088
Fax (435) 722-5727

WATER ANALYSIS REPORT

Company Coastal Address _____ Date 10-28-98

Source Conoco Tribal 31-55A Date Sampled 10-22-98 Analysis No. _____
Upper greenriver

	Analysis	mg/l(ppm)	*Mg/l
1. PH	<u>8.8</u>		
2. H ₂ S (Qualitative)	<u>6.0</u>		
3. Specific Gravity	<u>1.024</u>		
4. Dissolved Solids		<u>36,953</u>	
5. Alkalinity (CaCO ₃)	CO ₃	<u>240</u>	+ 30 <u>8</u> CO ₃
6. Bicarbonate (HCO ₃)	HCO ₃	<u>7,600</u>	+ 61 <u>124</u> HCO ₃
7. Hydroxyl (OH)	OH	<u>0</u>	+ 17 <u>0</u> OH
8. Chlorides (Cl)	Cl	<u>15,600</u>	+ 35.5 <u>439</u> Cl
9. Sulfates (SO ₄)	SO ₄	<u>120</u>	+ 48 <u>3</u> SO ₄
10. Calcium (Ca)	Ca	<u>80</u>	+ 20 <u>4</u> Ca
11. Magnesium (Mg)	Mg	<u>0</u>	+ 12.2 _____ Mg
12. Total Hardness (CaCO ₃)		<u>200</u>	
13. Total Iron (Fe)		<u>.7</u>	
14. Manganese		<u>0</u>	
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

	Compound	Eqvly. Wt.	X	Mg/l	=	Mg/l
4	Ca(HCO ₃) ₂	81.04		<u>4</u>		<u>324</u>
0	CaSO ₄	68.07				
	CaCl ₂	55.50				
	Mg(HCO ₃) ₂	73.17				
	MgSO ₄	60.19				
	MgCl ₂	47.62				
	NaHCO ₃	84.00		<u>128</u>		<u>10,752</u>
	Na ₂ SO ₄	71.03		<u>3</u>		<u>213</u>
	NaCl	58.48		<u>439</u>		<u>25664</u>

Saturation Values	Distilled Water 20°C
CaCO ₃	13 Mg/l
CaSO ₄ · 2H ₂ O	2,090 Mg/l
MgCO ₃	103 Mg/l

REMARKS _____

EXHIBIT M

NBU #205

NW/SE SECTION 9, T10S-R22E

TD: 7263' (WASATCH) SD: 9/25/92

CSG: 5-1/2" @ 7263'

Test Mesaverde

- 10/6/92 Release drilling rig w/5-1/2" casing set @ 7263'.
- 10/92 MIRU Cutters WLS w/mast truck. Ran CBL-CCL-GR log from 7163' to surface w/1000 psi on csg. Good bond, TOC @ 1570'. Perf 9 holes 6436'-7078' w/4" csg gun and acidize. Test non-economic.
- 10/22/92 **Top down job.** Mix & displace LCM pill, 55 sx Class "G" w/2% CaCl₂, .7% CF-2, 3 pps Hi-Seal 3, 1/4 pps Cello Seal, 150 sx Class "G" w/2% CaCl₂ + .7% CF-2.

Complete Wasatch

- 12/92 MIRU Cutters WLS. Set 5-1/2" x 17# CIBP @ 6500'. Perf 9 zones, 12 holes w/4" csg guns, 1 JSPF, 4376'-6432' & acidize. EOT @ 4328.21. Flwg 1.0 MMCFD, FTP 550 psi, CP froze, 20/64" chk, 5-10 BWPD.
- 1/11/93 Frac perfs 4376'-6432' (13 holes) w/101,800 gal 40# CMHPG + 162 tons CO₂ (30% to 15%) + 280,000# 20/40 sand. AIR 30 BPM @ 2900 psi. ISIP 1650 psi, 5 min 1540 psi, 10 min 1500 psi, 15 min 1440 psi. SI 2-hrs. Start flow back @ 4:00 p.m. on 18/64" chk.

Clean out, Perf, Acidize, Install PLE

- 02/28/96 POH w/tbg. PU & RIH w/hydrostatic bailer. CO from 6302' to CIBP. Spot 2000 gal 15% HCl across perfs - circ 15± BW to pit. Let acid soak 3 hrs, circ out, spent acid & sand from 6429' to CIBP @ 6500'. RIH & broach prod tbg - 201 jts landed @ 6436'. Install plunger, run in w/swab tag fluid @ 2900'. Made 17 runs, swab back 102 bbls, 162 total, FFL 3100'. SITP 0 psi, FSICP 375 psi. SDFN.

Reperf & Acidize w/RBP & Packer

- 04/23/96 Perf 12 intervals 4376'-6432' 4 SPF 4" csg gun. PU RIH. RBP and pkr, set RBP @ 4600', pkr @ 4300'. Pump 7 bbls 15% KCl + additives 320#. 0.8 BPM. Rls pkr. PU RBP - reset @ 5350' pkr @ 4900', pump 20 bbls 15%. Rls pkr, PU RBP, reset @ 5850', set pkr @ 5350', pump 11 bbls 15%. Rls pkr, PU RBP, reset pkr @ 6350' - pump 7 bbls 8% HCl - Rls pkr, POH & reset pkr @ 4300'. Ru Swab, pull 3 runs, line part on 4th run. FL @ 2700' - Recovered 18 bbls, much acid - Start swab again FL 2700', pull 6 runs from 4150' - rec 30 bbls, total recovered 48 bbls. 66 LTR. Rls pkr and POH pkr and plug. RIH prod string, notch clr, SN 201 jts, broach tbg in hole. Land in donut - SN @ 6400±, EOT @ 6432'

Raise plunger operating depth

- 07/16/96 RU Delsco WL Unit, CP 825 psi, equilibize well. Run in retrieve plunger stdg vlv. Run in w/clr stop, set @ 5056'. Run in w/2 3/8" perf gun, shoot 4 holes in tubing from 5056'-5058'. Run in & PU clr stop & set @ 5028' & drop bumper spring & plunger and open well to separator. FL 4600'. TP 50 psi, CP 875 psi. Made 1 swab, run from 2700'-5000'. Well flowing. Put well to separator & RD Swab rig. Flowing 95 MMCF, 50 BW, 275 TP, 610 CP, on 30/64" chk.

NBU 205 - SWDW Conversion

NW SE Section 9-10S-22E

Uintah County, UT

January 13, 1999

ELEVATION: 5213' GL; 5228' KB
TOTAL DEPTH: 7263' PBD: 7206' (6281' - 10/3/95 SLM)
CASING: 8", 24#, K-55 ST&C set @ 271'
 5½", 17#, J-55 set @ 7263'
TUBING: Current - 2-3/8" 4.7# @ 4328'
 Proposed - 2-7/8", 6.5#, N-80 plastic-lined tubing @ 1400'
PERFORATIONS: Current - 4376'-6432' 12 holes
 Proposed - 1522'-1620' 156 holes

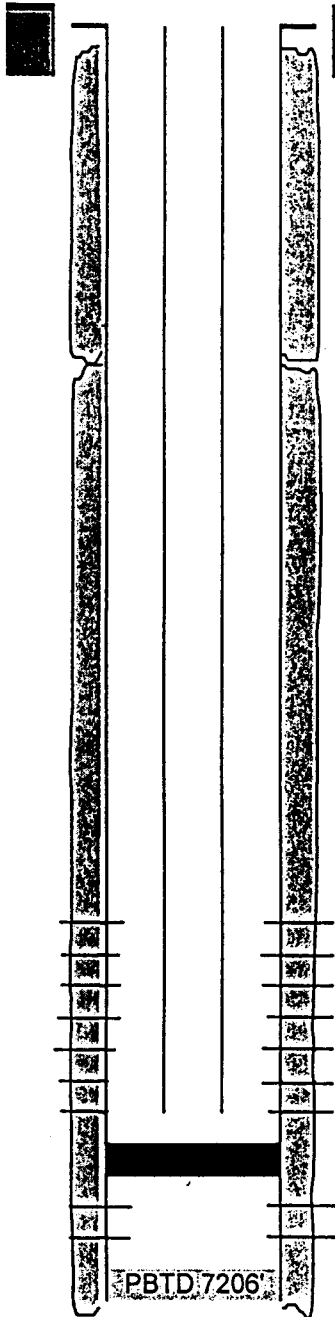
PROCEDURE:

1. MIRU pulling unit. Control well. ND WH, NU BOP's. POOH w/2" tbg.
2. RU W/L. Run CBL 1600' to surface.
3. Set CICR at 4200'. TIH w/tbg. Sting into retainer and establish injection rate. Cement squeeze Wasatch perms 4376-6432' w/275 sxs class G w/0.5% FLAC (1.15 ft³/sk, 15.8 ppg, 4.98 gal H₂O/sk). Spot last 10 sxs on top of CICR. Reverse circulate excess f/well.
4. POOH L/D all but 2000' of tubing. Set CIBP at 2500'. Dump bail 2 sx cement on CIBP. **Perforate Trona member of Upper Green River formation 1522-32', 1540-50', 1560-70', 1610-20' (GR/CBL 10/13/92) w/4" casing gun 3 spf 120 phasing.** Swab well for water sample & test salinity. Run injection step-rate test. If less than 1 bpm at 100 psi, plan to acidize tomorrow.
5. If necessary, TIH to bottom perf and spot 500 gal 15% HCl w/additives. PU above perms and acidize w/an additional 1500 gal 15% HCl w/ additives. Swab ball sealers off perms. Rerun injection step-rate test. (Run static bottom-hole pressure if stipulated by EPA or state of Utah). POOH and L/D tubing.
6. PU 5-1/2" 17# Arrowset I-X injection packer w/teflon internal coating and 2-7/8" J-55 6.4#/ft tubing w/Duoline 10 lining (2.2" ID). Circulate packer fluid (0.5% Techni-Hib and 1 gal Alta 133 biocide) prior to setting packer. Set packer at 1400'. Test tbg/csg annulus to 1000 psi.
7. ND BOP's/NU tree. RDMO PU.
8. Install surface facilities (similar to NBU 159 SWD) and connect gas supply.
 - 3-500 bbls tanks w/stairs
 - Line Heater
 - J-60L Triplex w/building
 - Gas supply f/UT 83x or NBU 206

NBU 205 SWDW
Section 9-10S-22E
NBU Field
Uintah Co., Utah

Current Wellbore Schematic

GL: 5213'
KB: 5228'



8-5/8" set @ 271' & cemented to surface.

Top down cement job pumped 10/22/92

Primary cement top at 1570' 10/13/92

Well is Shut-In: Uneconomic

Perfs 4376-6436'
1 spf 12 holes

2-3/8" tubing @ 6436' w/SN @ 6402'

CIBP @ 6500' set 10/92

Perfs 6550-7078'

PBTD 7206'

5-1/2" 17# N-80 @ 7263'

NBU 205 SWDW
Section 9-10S-22E
 NBU Field
 Uintah Co., Utah

Proposed Wellbore Schematic

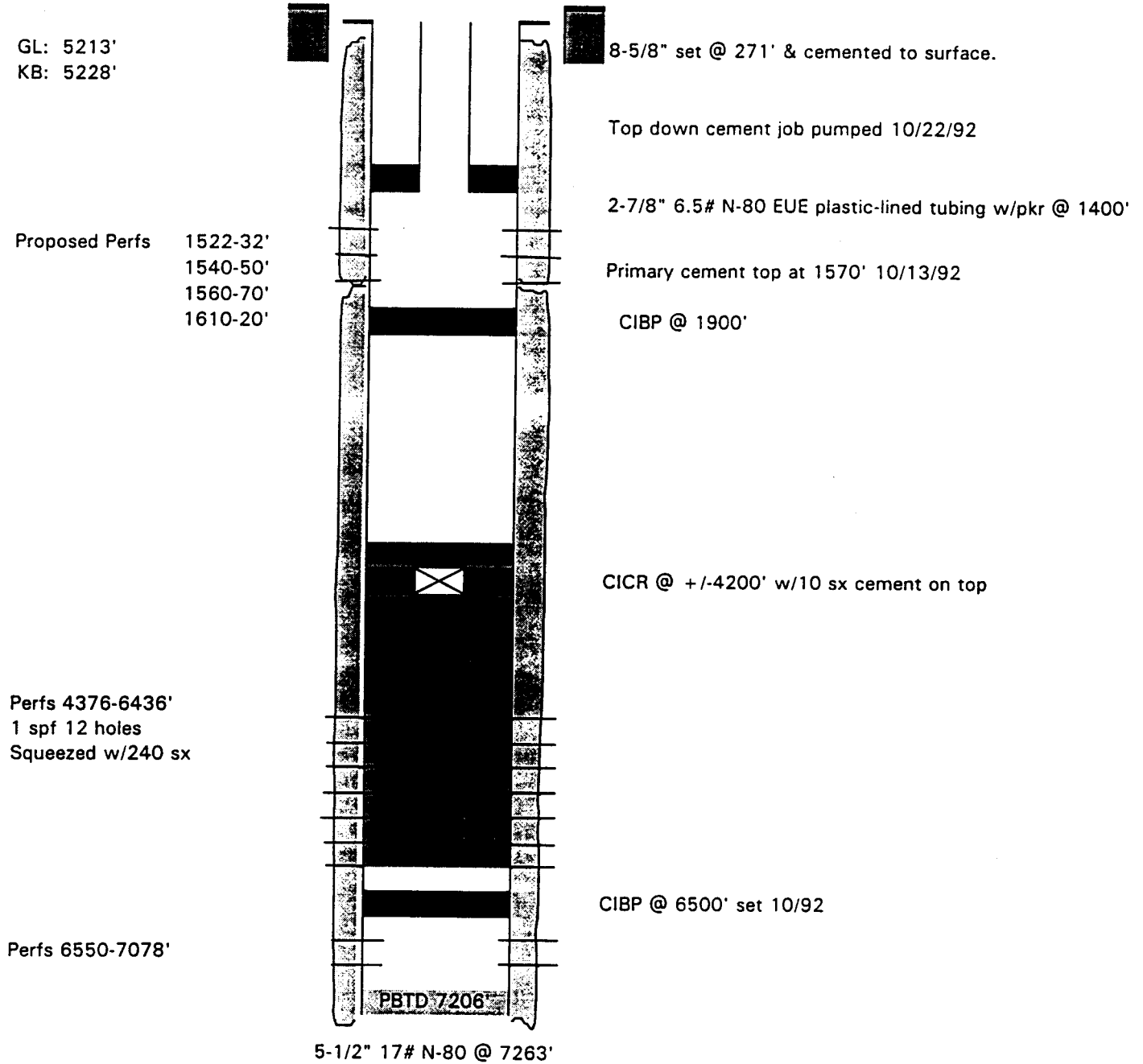
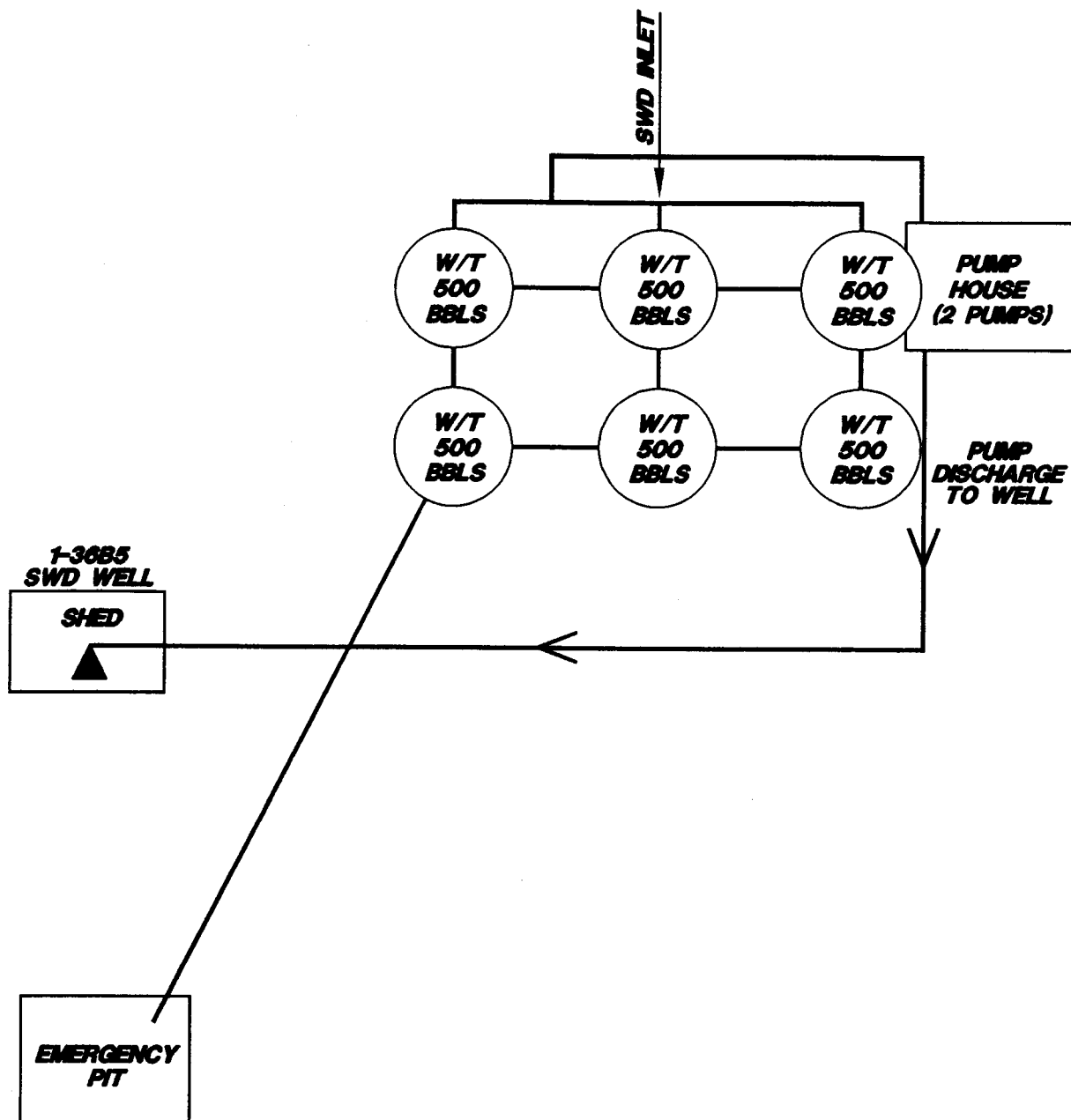


Exhibit M4



Coastal Oil & Gas Corporation
A SUBSIDIARY OF THE COASTAL CORPORATION
The Energy People

NATURAL BUTTES UNIT
UINTAH COUNTY, UTAH

PROPOSED SWD FACILITY

NBU 205
SEC. 9 T10S-R22E

SCALE: NONE

JANUARY, 1999

EXHIBIT Q
NBU 205 - SWDW P&A Plan
NW SE Section 9-10S-22E
Uintah County, UT
January 13, 1999

ELEVATION: 5213' GL; 5228' KB
TOTAL DEPTH: 7263' PBD: 7206' (6281' - 10/3/95 SLM)
CASING: 8", 24#, K-55 ST&C set @ 271'
5½", 17#, J-55 set @ 7263'
TUBING: Current - 2-3/8" 4.7# @ 4328'
Proposed - 2-7/8", 6.5#, N-80 plastic-lined tubing @ 1400'
PERFORATIONS: Current - 4376'-6432' 12 holes
Proposed - 1522'-1620' 156 holes

P&A Plan:

1. Obtain permit from regulatory agencies for P&A proceedings.
2. MIRU pulling unit. Control well. ND WH, NU BOP's. Unseat packer and POOH w/2" lined tbg.
3. RU W/L. Set CICR at 1400'. PU & TIH w/tbg. Sting into retainer and establish injection rate. Cement squeeze perfs 1522-1620' w/75 sxs class G w/0.5% FLAC (1.15 ft³/sk, 15.8 ppg, 4.98 gal H₂O/sk). Spot last 10 sxs on top of CICR. Reverse circulate excess f/well.
4. POOH to 250'. Spot surface plug and POOH.
5. ND BOP's. Cut casing at state-required depth and install cap plate. RDMO PU.

TWH

NBU 205 SWDW
Section 9-10S-22E
 NBU Field
 Uintah Co., Utah

Proposed Schematic @ P&A

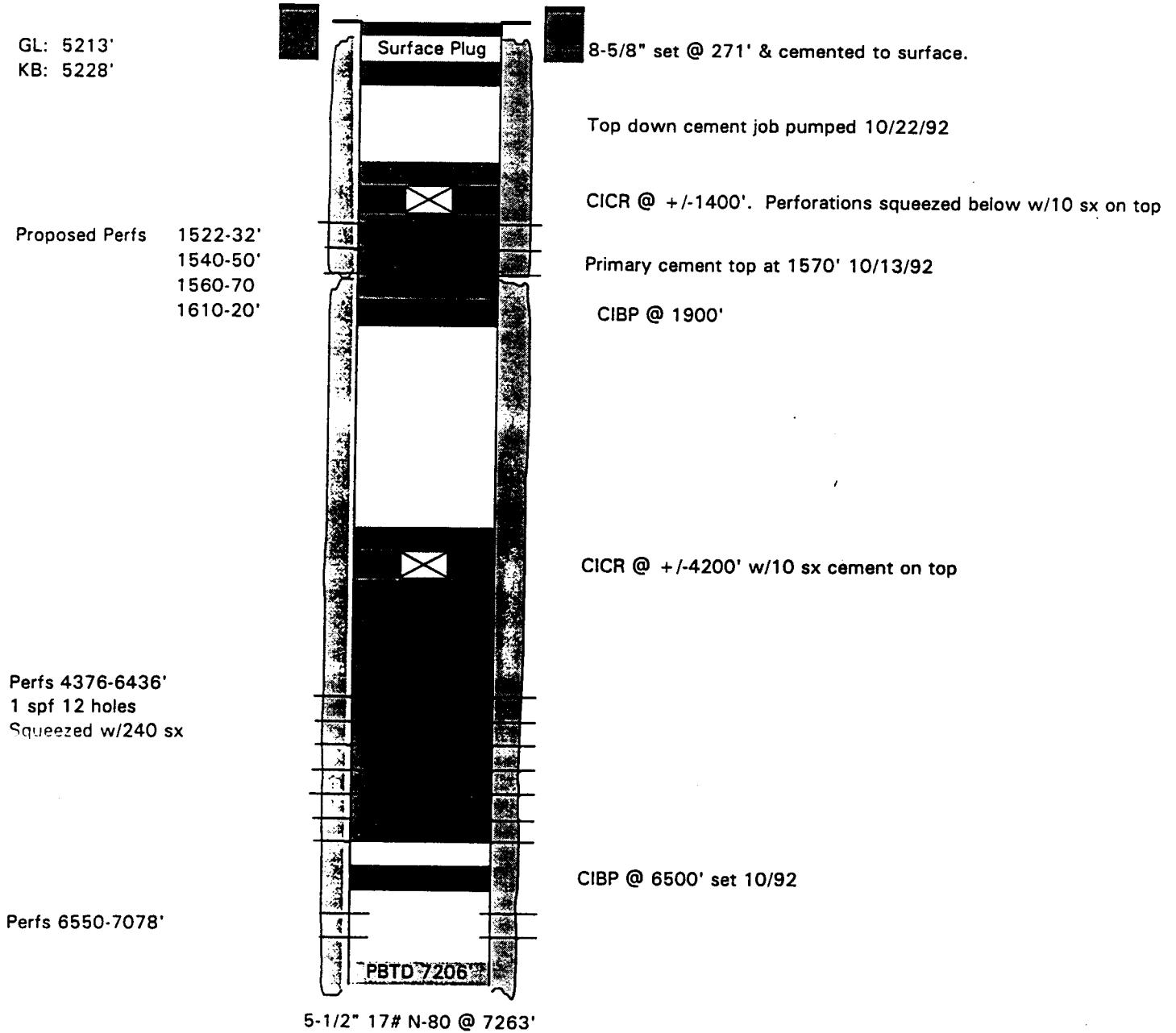


EXHIBIT R

Bond Rider Letter



Reliance

RELiance SURETY COMPANY
Philadelphia, PA

UNITED PACIFIC INSURANCE COMPANY
Philadelphia, PA

RELiance INSURANCE COMPANY
Philadelphia, PA

RELiance NATIONAL INDEMNITY COMPANY
Philadelphia, PA
DUPLICATE ORIGINAL

RIDER

To be attached to and form a part of

Type of Bond: **Injection Well Plugging**

Bond No.: **U605243-56**

executed by **Coastal Oil & Gas Corporation**

and by **United Pacific Insurance COMPANY, as Surety**

in favor of **U.S. Environmental Protection Agency**

and dated **April 22, 1992**

in consideration of the premium charged for the attached bond, it is hereby agreed to change:
The penal sum of the bond:

From: **One Hundred and Forty Nine Thousand Seven Hundred and Thirty Five and No/100---Dollars
(\$149,735.00)**

To: **One Hundred and Sixty Nine Thousand Two Hundred and Thirty Five and No/100-----Dollars
(\$169,235.00) Increased by \$19,500.00**

The attached bond shall be subject to all its agreements, limitations and conditions except as herein expressly modified.

This rider is effective: **January 22, 1999**

Signed and Sealed: **January 22, 1999**

Principal: **Coastal Oil & Gas Corporation**

By: *Ronald D. Matthews*
Ronald D. Matthews, Vice President & Treasurer

By: *Karen Kellner*
United Pacific Insurance Company
Karen Kellner Attorney-in-Fact

RIDER ACCEPTED (Please sign duplicate of this Rider and return to Surety)

By: _____

RELIANCE SURETY COMPANY
UNITED PACIFIC INSURANCE COMPANY

RELIANCE INSURANCE COMPANY
RELIANCE NATIONAL INDEMNITY COMPANY

ADMINISTRATIVE OFFICE, PHILADELPHIA, PENNSYLVANIA

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that RELIANCE SURETY COMPANY is a corporation duly organized under the laws of the State of Delaware, and that RELIANCE INSURANCE COMPANY and UNITED PACIFIC INSURANCE COMPANY, are corporations duly organized under the laws of the Commonwealth of Pennsylvania and that RELIANCE NATIONAL INDEMNITY COMPANY is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called "the Companies") and that the Companies by virtue of signature and seals do hereby make, constitute and appoint William N. Burke, Jr., Dan W. Burton, Joy Majovsky, Wendy W. Stuckey, Michael J. Herrod, Lupe Tamayo, Judy Etheredge, Joan Bagnall, James W. Baughman, Karen Kellner, of Houston, Texas their true and lawful Attorney(s)-in-Fact, to make, execute, seal and deliver for and on their behalf, and as their act and deed any and all bonds and undertakings of suretyship and to bind the Companies thereby as fully and to the same extent as if such bonds and undertakings and other writings obligatory in the nature thereof were signed by an Executive Officer of the Companies and sealed and attested by one other of such officers, and hereby ratifies and confirms all that their said Attorney(s)-in-Fact may do in pursuance hereof.

This Power of Attorney is granted under and by the authority of Article VII of the By-Laws of RELIANCE SURETY COMPANY, RELIANCE INSURANCE COMPANY, UNITED PACIFIC INSURANCE COMPANY, and RELIANCE NATIONAL INDEMNITY COMPANY which provisions are now in full force and effect, reading as follows:

ARTICLE VII - EXECUTION OF BONDS AND UNDERTAKINGS

1. The Board of Directors, the President, the Chairman of the Board, any Senior Vice President, any Vice President or Assistant Vice President or other officer designated by the Board of Directors shall have power and authority to (a) appoint Attorney(s)-in-Fact and to authorize them to execute on behalf of the Company, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof, and (b) to remove any such Attorney(s)-in-Fact at any time and revoke the power and authority given to them.

2. Attorney(s)-in-Fact shall have power and authority, subject to the terms and limitations of the Power of Attorney issued to them, to execute deliver on behalf of the Company, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof. The corporate seal is not necessary for the validity of any bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof.

3. Attorney(s)-in-Fact shall have power and authority to execute affidavits required to be attached to bonds, recognizances, contracts of indemnity or other conditional or obligatory undertakings and they shall also have power and authority to certify the financial statement of the Company and to copies of the By-Laws of the Company or any article or section thereof.

This Power of Attorney is signed and sealed by facsimile under and by authority of the following resolution adopted by the Executive and Finance Committees of the Boards of Directors of Reliance Insurance Company, United Pacific Insurance Company and Reliance National Indemnity Company by Unanimous Consent dated as of February 28, 1994 and by the Executive and Financial Committee of the Board of Directors of Reliance Surety Company by Unanimous Consent dated as of March 31, 1994.

"Resolved that the signatures of such directors and officers and the seal of the Company may be affixed to any such Power of Attorney or any certificates relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company and any such Power so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company, in the future with respect to any bond or undertaking to which it is attached."

IN WITNESS WHEREOF, the Companies have caused these presents to be signed and their corporate seals to be hereto affixed, this March 10, 1998.



RELIANCE SURETY COMPANY
RELIANCE INSURANCE COMPANY
UNITED PACIFIC INSURANCE COMPANY
RELIANCE NATIONAL INDEMNITY COMPANY

David T. Akers

STATE OF Pennsylvania
COUNTY OF Philadelphia

} ss.

On this, March 10, 1998, before me, Valencia Wortham, personally appeared David T. Akers, who acknowledged himself to be the Senior Vice President of the Reliance Surety Company, and the Vice President of Reliance Insurance Company, United Pacific Insurance Company, and Reliance National Indemnity Company and that as such, being authorized to do so, executed the foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as its duly authorized officer.

In witness whereof, I hereunto set my hand and official seal.

Notarial Seal
Valencia Wortham, Notary Public
Philadelphia, Philadelphia County
My Commission Expires Nov. 18, 2000



Valencia Wortham

Notary Public in and for the State of Pennsylvania
Residing at Philadelphia

I, Anita Zippert, Secretary of RELIANCE SURETY COMPANY, RELIANCE INSURANCE COMPANY, UNITED PACIFIC INSURANCE COMPANY, and RELIANCE NATIONAL INDEMNITY COMPANY do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 22nd day of January 1999.

Anita Zippert

Secretary



APPLICATION FOR INJECTION WELL - UIC FORM 1

OPERATOR Coastal Oil & Gas Corporation
ADDRESS P. O. Box 749
Denver, Colorado 80201-0749

Well name and number: NBU #205

Field or Unit name: Natural Buttes Unit Lease no. U-01196-D

Well location: QQ NW/SE section 9 township 10S range 22E county Uintah

Is this application for expansion of an existing project? . . Yes ☐ No ☒

Will the proposed well be used for: Enhanced Recovery? . . Yes ☐ No ☒
Disposal? Yes ☒ No ☐
Storage? Yes ☐ No ☒

Is this application for a new well to be drilled? Yes ☐ No ☒

If this application is for an existing well,
has a casing test been performed on the well? Yes ☐ No ☒
Date of test: N/A

API number: 43-047-32344

Proposed injection interval: from 1510' to 1655'

Proposed maximum injection: rate 2000 BPD pressure 450 psig

Proposed injection zone contains ☐ oil, ☐ gas, and/or ☐ fresh water within 1/2 mile of the well. There are no water wells within 1/2 mile.

IMPORTANT: Additional information as required by R615-5-2 should accompany this form.

List of Attachments: Sundry Notice; Conversion Procedure; Proposed Well Schematic;
Current Well Schematic; Plat Map; Elogs; Water Analysis; Geologic Data

I certify that this report is true and complete to the best of my knowledge.

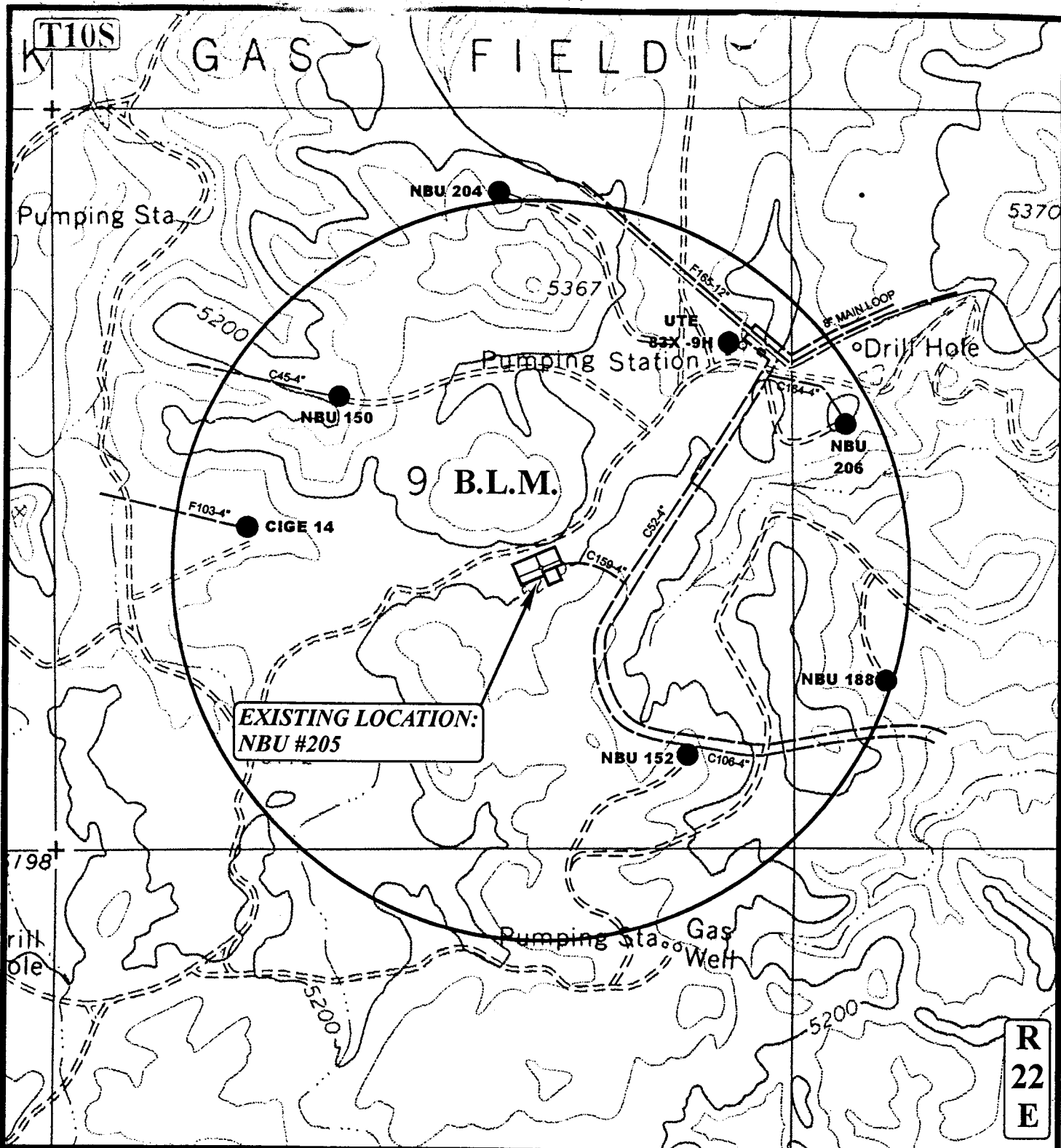
Name W. L. Donnelly
Title Vice President
Phone No. (303) 572-1112

Signature *W. L. Donnelly*
Date 11/29/97

(State use only)

Application approved by _____ Title _____
Approval Date _____

Comments:



LEGEND:

- ===== EXISTING ROAD
- EXISTING 12" PIPELINE
- EXISTING 10" PIPELINE
- EXISTING 8" PIPELINE
- EXISTING 6" PIPELINE
- EXISTING 4" PIPELINE
- EXISTING WELL LOCATION

COASTAL OIL & GAS CORP

NBU #205
SECTION 9, T10S, R22E, S.L.B.&M.
1981' FSL 1808' FEL



Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

**AFFIDAVIT OF
SURFACE INSPECTION**

10 21 98
MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: D.COX REVISED: 00-00-00

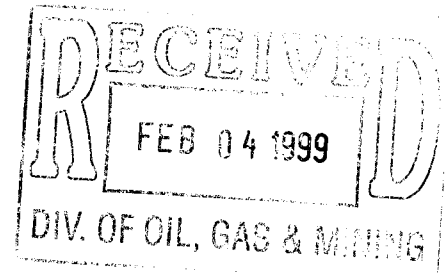
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Coastal
The Energy People

February 2, 1999

UIC Application
NBU #205
Section 9-T10S-R22E
Uintah County, Utah



Mr. Dave Hogle
EPA Region VIII
UIC Groundwater Program
999 18th Street, Suite 500
Mail Code: 8P2-W-GW
Denver, Colorado 80202-2466

Mr. Dan Jarvis
State of Utah
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114

Dear Messrs. Hogle & Jarvis:

Enclosed please find the referenced application to convert the NBU #205 to a saltwater disposal well. If you have any questions or need additional information, please call me at (303) 573-4455.

Sincerely,

Sheila Bremer
Environmental & Safety Analyst

Enclosures

cc: Charlie Cameron, BIA
Ferron Secakuku, Ute Tribe
Jerry Kenczka, BLM

Coastal Oil & Gas Corporation

A SUBSIDIARY OF THE COASTAL CORPORATION
600 17TH ST • STE 800 S • P O BOX 749 • DENVER CO 80201-0749 • 303/572-1121

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1094-0135
Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

3a. Address

P.O. Box 749, Denver, CO 80201-0749

3b. Phone No. (include area code)

(303) 573-4455

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1981' FSL & 1808' FEL
NWSE, Section 9-T10S-R22E

5. Lease Serial No.

U-01196-D

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
Natural Buttes Unit

8. Well Name and No.
NBU 205

9. API Well No.
43-047-32344

10. Field and Pool, or Exploratory Area

Natural Buttes Field

11. County or Parish, State

Uintah Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

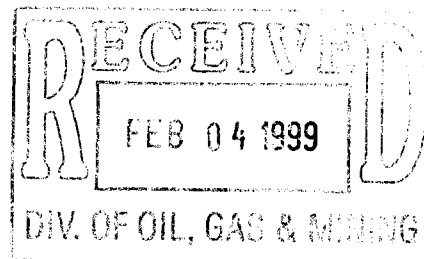
TYPE OF ACTION

- | | | | |
|--|---|--|---|
| <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | |
| <input checked="" type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Please see the attached procedure to convert the subject well to injection.

Note: Appropriate UIC applications have been filed with the appropriate agencies.



14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Sheila Bremer

Title

Environmental & Safety Analyst

Date

1/29/99

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

NBU 205 - SWDW Conversion

NW SE Section 9-10S-22E

Uintah County, UT

January 13, 1999

ELEVATION: 5213' GL; 5228' KB
TOTAL DEPTH: 7263' PBTD: 7206' (6281' - 10/3/95 SLM)
CASING: 8", 24#, K-55 ST&C set @ 271'
5½", 17#, J-55 set @ 7263'
TUBING: Current - 2-3/8" 4.7# @ 4328'
Proposed - 2-7/8", 6.5#, N-80 plastic-lined tubing @ 1400'
PERFORATIONS: Current - 4376'-6432' 12 holes
Proposed - 1522'-1620' 156 holes

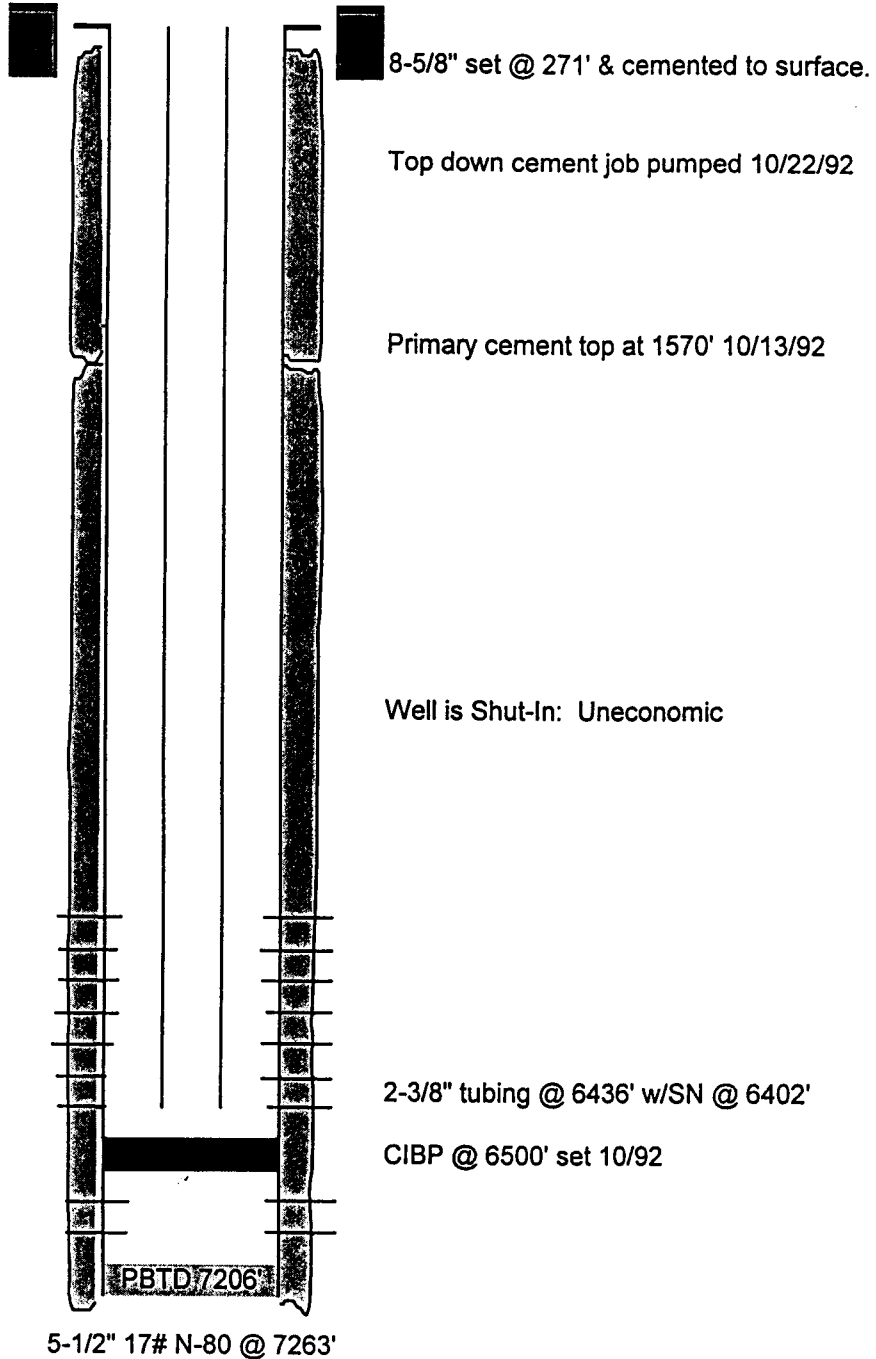
PROCEDURE:

1. MIRU pulling unit. Control well. ND WH, NU BOP's. POOH w/2" tbg.
2. RU W/L. Run CBL 1600' to surface.
3. Set CICR at 4200'. TIH w/tbg. Sting into retainer and establish injection rate. Cement squeeze Wasatch perms 4376-6432' w/275 sxs class G w/0.5% FLAC (1.15 ft³/sk, 15.8 ppg, 4.98 gal H₂O/sk). Spot last 10 sxs on top of CICR. Reverse circulate excess f/well.
4. POOH L/D all but 2000' of tubing. Set CIBP at 2500'. Dump bail 2 sx cement on CIBP. **Perforate Trona member of Upper Green River formation 1522-32', 1540-50', 1560-70', 1610-20' (GR/CBL 10/13/92) w/4" casing gun 3 spf 120 phasing.** Swab well for water sample & test salinity. Run injection step-rate test. If less than 1 bpm at 100 psi, plan to acidize tomorrow.
5. If necessary, TIH to bottom perf and spot 500 gal 15% HCl w/additives. PU above perms and acidize w/an additional 1500 gal 15% HCl w/ additives. Swab ball sealers off perms. Rerun injection step-rate test. (Run static bottom-hole pressure if stipulated by EPA or state of Utah). POOH and L/D tubing.
6. PU 5-1/2" 17# Arrowset I-X injection packer w/teflon internal coating and 2-7/8" J-55 6.4#/ft tubing w/Duoline 10 lining (2.2" ID). Circulate packer fluid (0.5% Techni-Hib and 1 gal Alta 133 biocide) prior to setting packer. Set packer at 1400'. Test tbg/csg annulus to 1000 psi.
7. ND BOP's/NU tree. RDMO PU.
8. Install surface facilities (similar to NBU 159 SWD) and connect gas supply.
 - 3-500 bbls tanks w/stairs
 - Line Heater
 - J-60L Triplex w/building
 - Gas supply f/UT 83x or NBU 206

NBU 205 SWDW
Section 9-10S-22E
NBU Field
Uintah Co., Utah

Current Wellbore Schematic

GL: 5213'
KB: 5228'



NBU 205 SWDW
Section 9-10S-22E
 NBU Field
 Uintah Co., Utah

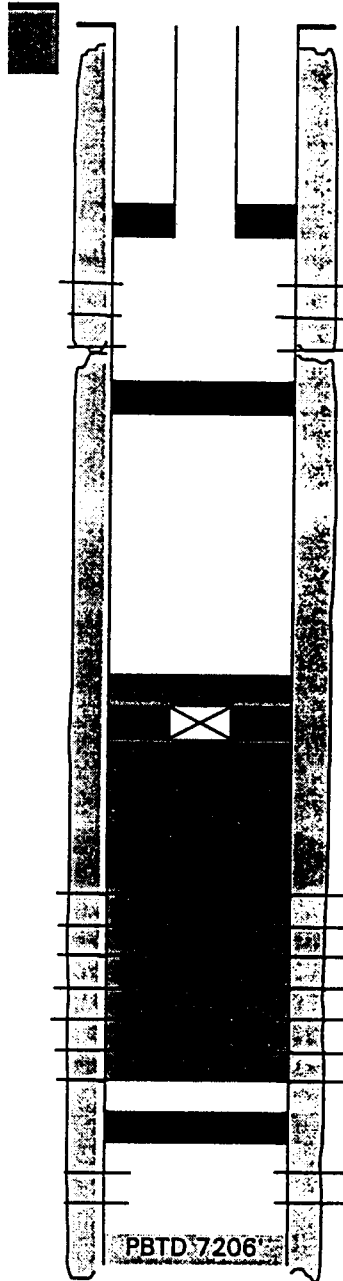
Proposed Wellbore Schematic

GL: 5213'
 KB: 5228'

Proposed Perfs 1522-32'
 1540-50'
 1560-70'
 1610-20'

Perfs 4376-6436'
 1 spf 12 holes
 Squeezed w/240 sx

Perfs 6550-7078'



8-5/8" set @ 271' & cemented to surface.

Top down cement job pumped 10/22/92

2-7/8" 6.5# N-80 EUE plastic-lined tubing w/pkr @ 1400'

Primary cement top at 1570' 10/13/92

CIBP @ 1900'

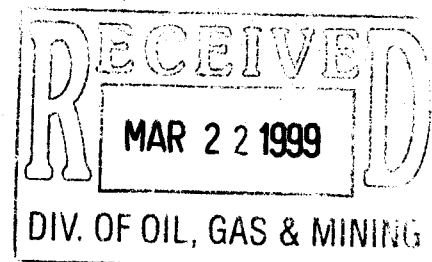
CICR @ +/-4200' w/10 sx cement on top

CIBP @ 6500' set 10/92

5-1/2" 17# N-80 @ 7263'



March 17, 1999



UIC Permit Application
UIC Permit No.: UT2864-04501
NBU #205
Natural Buttes Unit
Uintah County, Utah

Mr. Dan Jackson
Groundwater Program
Mail Code 8P-W-GW
U.S. Environmental Protection Agency, Region VIII
999 18th Street, Suite 500
Denver, Colorado 80202-2466

Dear Mr. Jackson:

Please find attached an amended copy of the above referenced UIC Permit Application. Per your letter dated February 12, 1999, and your phone conversation on March 3, 1999, with Steve Rawlings at Buys & Associates, the following items were addressed:

Potential USDW's - Formations above the injection zone may contain possible USDW zones, however no USDW wells have been drilled therefore potential formations cannot be identified. (This was added on Page 4, Section E.)

Confining Zones and Lithology - Initially only the upward confining zone and lithology were described. Added on Page 5, Section G was the following: Downward movement will be prevented by tight sand streaks and impermeable oil shales at the base of the Upper Green River Formation.

Fracture Pressure Identification - A maximum surface injection pressure (MIP) was calculated using a typical fracture gradient of 0.65 psi/ft within the Natural Buttes Field. A step rate test will be performed in steps 4 and 5 of the conversion procedure to verify this. Depending on results, adjustments to the MIP will be made accordingly and submitted to the EPA and State of Utah. (This was added on Page 5, Section H.)

Plugging and Abandonment Plan - EPA Form 7520-14 has been completed and is included as Exhibit Q.

Coastal Oil & Gas Corporation

A SUBSIDIARY OF THE COASTAL CORPORATION
600 17TH ST • STE 800 S • P O BOX 749 • DENVER CO 80201-0749 • 303/572-1121

If you have any additional questions or need further clarification, please don't hesitate to call Steve Rawlings (303-730-2500) or me (303-573-4455).

Sincerely,

A handwritten signature in cursive script that reads "Sheila Bremer". The signature is written in black ink and is positioned above the printed name and title.

Sheila Bremer
Environmental & Safety Analyst

Attachment

cc: Ferron Secakuku, Ute Tribe
Charles Cameron, BIA
Jerry Kenzcka, BLM
Dan Jarvis, State of Utah DOGM

UNDERGROUND INJECTION CONTROL

PERMIT APPLICATION

**NBU #205
NW/SE Section 9 - T10S - R22E
Uintah County, Utah**

March 4, 1999

Prepared for:

*Ms. Sheila Bremer
Environmental and Safety Analyst
Coastal Oil & Gas Corporation
600 17th Street
Suite 800 South
Denver, Colorado 80201*

Prepared by:

**BUYS & ASSOCIATES, INC.
8000 South Lincoln, Suite 10-2
Littleton, Colorado 80122
(303) 730-2500
FAX (303) 730-2522**

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ATTACHMENTS TO EPA UIC FORM 4

A. AREA OF REVIEW METHODS AND NOTIFICATION OF LAND OWNERS

The area of review is a fixed radius of one-quarter (1/4) mile from the wellbore. The Bureau of Land Management (BLM) is the surface and mineral rights owner of the 160 acre quarter section on which the NBU #205 is located. As per the State of Utah requirements, Exhibit A shows all property owners within a half (1/2) mile radius of the wellbore. Please note the surface owner and mineral rights owner for all lands within a half (1/2) mile of the wellbore is the BLM.

The wellbore is located within the greater boundary of Ute Tribal Lands.

B. MAPS OF WELLS AND AREA OF REVIEW

Exhibit B - Affidavit of Surface Inspection - provides topography, surface ownership, surrounding oil/gas wells, road access, and other existing surface facilities within a half (1/2) mile radius of the proposed injection well NBU #205.

C. CORRECTIVE ACTION PLAN AND WELL DATA

There are no other wells within the 1/4 mile area of review.

E. NAME AND DEPTH OF USDWs (Class II)

According to the State of Utah, Water Resource Division database, there are no water wells within the area of review. Formations above the injection zone may contain possible USDW zones, however no USDW wells have been drilled therefore potential formations cannot be identified.

The Bird's Nest Member of the Upper Green River Formation is the intended injection zone. Tests have not been run to determine the TDS content of the Upper Green River zones in the NBU #205. As part of the well conversion procedure, step 4 of Exhibit M1, the Bird's Nest Member will be swabbed for a water sample. The water sample will be tested for TDS and the analytical results reported to the EPA.

The proposed injection zone correlates to the injection zone in the NBU #159, located about four miles northwest of the proposed disposal well. The TDS content of the Birds Nest zone in this well varies from 23,000 mg/l to 65,000 mg/l. This TDS content disqualifies the water as an underground source of drinking water (USDW) and is, therefore, not subject to the protection afforded in 40CFR 144.7(a).

Formations below the Bird's Nest Member will be isolated by casing and cement, CICR and cement, and CIBP and cement according to Exhibits M1, M2, and M3.

See Exhibit E for well log copies (attached log pocket).

G. GEOLOGIC DATA ON INJECTION AND CONFINING ZONES (CLASS II)

Injection will be limited to the gross Bird's Nest Member (local name) of the Upper Green River Formation which is at a depth of 1510' to 1655' and has a gross thickness of 145'. Within this interval a total of 40 net feet will be perforated. If the injection capacity within this perforated interval is limited, the permittee may find it necessary to perforate additional intervals within the gross interval of 1510-1655'. These additions may be added later and will be reported on EPA Form 7520-12.

The Bird's Nest zone sands, which extend over a 145' interval, are individually separated by calcareous shales which act as isolation barriers/confining zones for injected fluids. The Uintah Formation extends from the surface to 1470' (upper confining zone), and is composed of interbedded thick impervious confining shales, thinner marls and siltstones, and thin sand stringers. This lithology should provide an effective barrier to upward movement of injected fluids. Downward movement will be prevented by tight sand streaks and impermeable oil shales at the base of the Upper Green River Formation. In addition, the conversion of the subject well will include a surface to 1570' cement plug in the annulus between well casing and formation above the top perforated interval

H. OPERATING DATA

- 1) Average Daily Injection Rate = 750 BPD
Maximum Daily Injection Rate = 2000 BPD
Total Volume of Fluids to be Injected = 5,475,000 BBL
(Assuming a 20 year life for the well.)
- 2) Average Injection Pressure = 200 psi
Maximum Injection Pressure = 350 psi. This is based on a typical frac gradient of 0.65 psi/ft within the Natural Buttes Field. A step rate test will be performed in steps 4 & 5 of the conversion procedure to verify this prior to the start of injection. Adjustments to the MIP will be made accordingly and submitted to the EPA and State.
- 3) Nature of Casing-Tubing Annulus Fluid: Fresh water with corrosion inhibitor or packer fluid.
- 4) Not applicable - Class I wells only.
- 5) Coastal Oil and Gas owns and operates certain oil/gas wells located in the area. Water to be injected into the NBU #205 will come from those wells. Exhibit H shows the water analyses run on these wells.

J. STIMULATION PROGRAM

Based on results of the injection step rate test it may be necessary to stimulate the well. If needed, the proposed injection zone will be acidized with 2000 gallons of 15% HCL. Another injection step rate test will be performed.

K. INJECTION PROCEDURES

The injected fluid will be delivered to the disposal site by pipeline or truck. A Triplex pump will be used to pump fluids down the tubing into the injection zone. Pressure controllers will shut down the Triplex pump when the maximum allowable injection pressure is reached.

Water storage will consist of two 500 bbl tanks and one 500 bbl skim tank. Level controllers on the storage tanks will automatically shut down the Triplex pump at low fluid levels. Any accumulations of crude oil carryover will be removed and disposed from the skim tank.

M. CONSTRUCTION DETAILS

See Exhibit M for details on well data and history. See Exhibit M1 for a detailed conversion to injection procedure. Exhibit M2 presents the current wellbore construction schematic. Exhibit M3 details the proposed wellbore construction schematic. Exhibit M4 provides a detailed surface facility diagram.

O. PLANS FOR WELL FAILURE

In the event the well is shut-in, whether manually or automatically, Coastal will take the following steps:

- 1) Determine the nature and extent of the failure causing the shut-in.
- 2) In the event the well cannot continue to operate as stipulated by the UIC permit the well will be temporarily shut-in. If the EPA grants permission to continue operations the well will be brought back on line.
- 3) An EPA representative will be contacted to discuss the reason for well failure and to determine corrective action.
- 4) If well shut-in is imminent then injection fluids will be diverted to other authorized disposal facilities.
- 5) In the event of a need for clean up/remediation then operations will proceed in accordance with Coastal emergency response plans and in accordance with applicable rules and regulations.

P. MONITORING PROGRAM

Coastal will monitor the water quality of the injection fluids on an annual basis. Analysis will include TDS, pH, specific conductivity and specific gravity. Any time there is a change in the source of the injection fluid a water quality analysis will be performed and submitted to the EPA for approval prior to injection disposal.

Q. PLUGGING AND ABANDONMENT PLAN

See Exhibit Q - Plugging and Abandonment Plan.

See Exhibit Q1 for the Proposed Plugging and Abandonment wellbore schematic.

R. NECESSARY RESOURCES

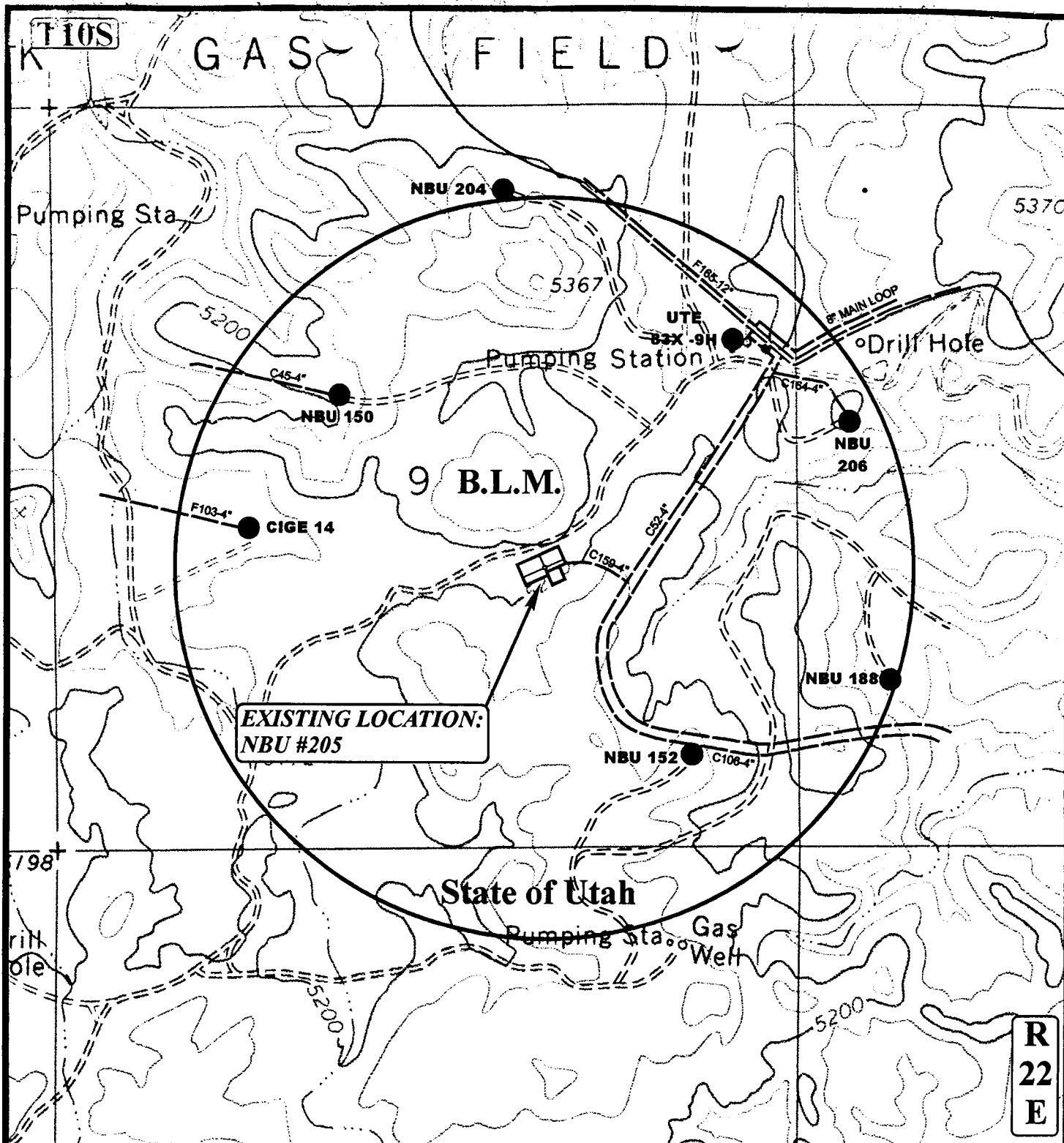
Coastal Oil & Gas Corporation has Bond # U605243-56 in place with the EPA to cover plugging and abandonment costs of appropriate SWD facilities. This bond has been amended to include the NBU #205. The new rider for this bond was mailed directly to Judy Binegar-Wilson at the EPA.

U. DESCRIPTION OF BUSINESS

Coastal Oil & Gas Corporation is an oil and gas exploration and production company.

V. STATE OF UTAH PERMIT

See Exhibit V - State of Utah, Application for Injection Well, UIC Form 1; Exhibit V1 for Affidavit of Surface Inspection - 1/2 mile radius and for surface ownership within a 1/2 mile radius.

**LEGEND:**

- ===== EXISTING ROAD
- EXISTING 12" PIPELINE
- EXISTING 10" PIPELINE
- EXISTING 8" PIPELINE
- EXISTING 6" PIPELINE
- EXISTING 4" PIPELINE
- EXISTING WELL LOCATION



Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

**COASTAL OIL & GAS CORP**

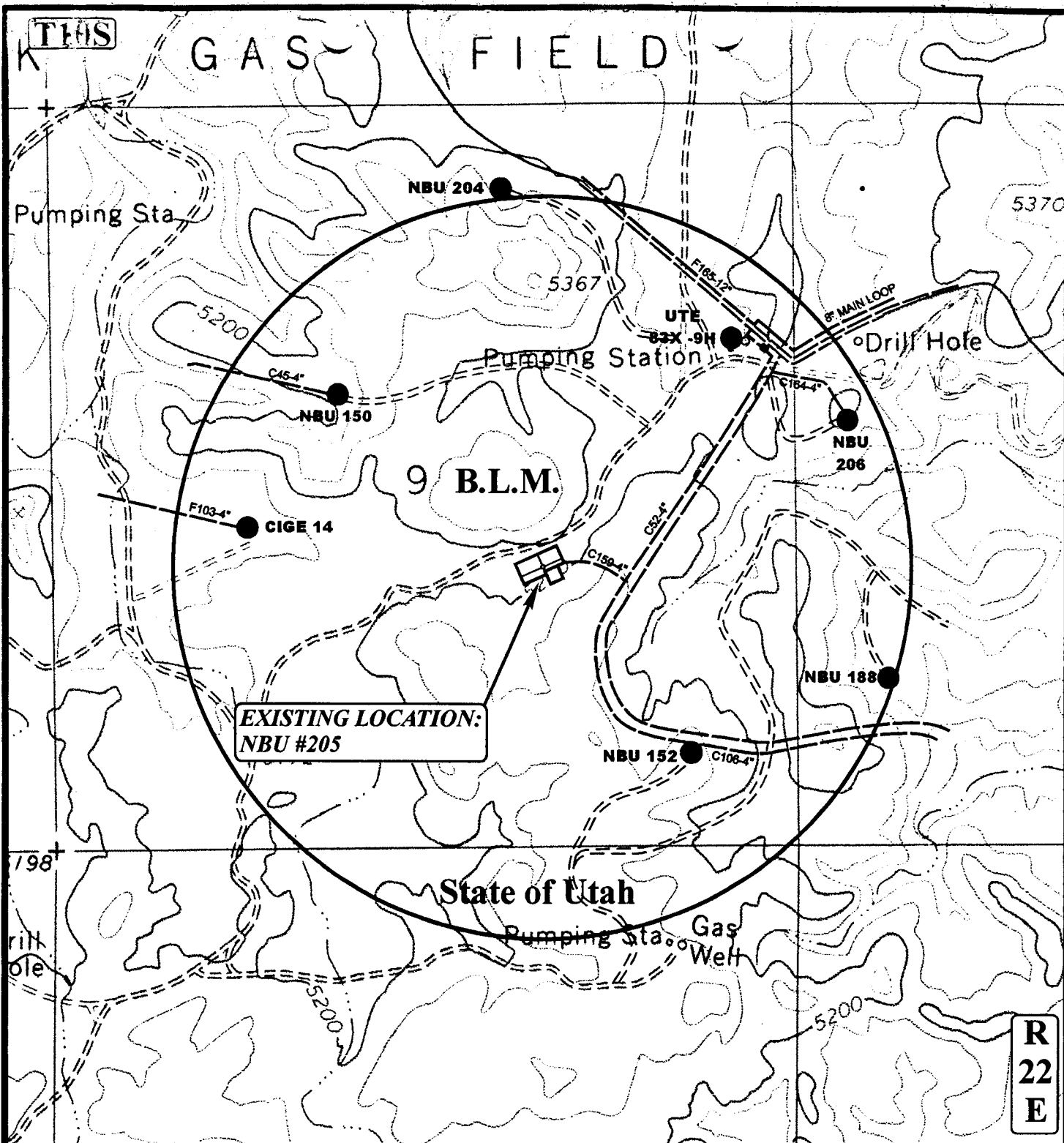
NBU #205
SECTION 9, T10S, R22E, S.L.B.&M.
1981' FSL 1808' FEL

**AFFIDAVIT OF
 SURFACE INSPECTION**

10 21 98
 MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: D.COX REVISED: 2-25-99

1
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LEGEND:

- EXISTING ROAD
- EXISTING 12" PIPELINE
- EXISTING 10" PIPELINE
- EXISTING 8" PIPELINE
- EXISTING 6" PIPELINE
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- EXISTING WELL LOCATION

COASTAL OIL & GAS CORP

NBU #205
SECTION 9, T10S, R22E, S.L.B.&M.
1981' FSL 1808' FEL



Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

AFFIDAVIT OF
SURFACE INSPECTION

10 21 98
MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: D.COX REVISED: 2-25-99

1
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EXHIBIT H

Water Analysis of Injection Fluids

UNICHEM

A Division of BJ Services

P.O. Box 217
Roosevelt, Utah 84066

Wasatch
Office (435) 722-5066
Fax (435) 722-5727

WATER ANALYSIS REPORT

Company Coastal Address _____ Date 10-28-98
Source Conoco Jenks 5-11 Date Sampled 10-22-98 Analysis No. _____
Wasatch

	Analysis	mg/l(ppm)	*Mg/l
1. PH	<u>6.0</u>		
2. H ₂ S (Qualitative)	<u>.5</u>		
3. Specific Gravity	<u>1.004</u>		
4. Dissolved Solids		<u>1,309</u>	
5. Alkalinity (CaCO ₃)	CO ₃	<u>0</u>	+ 30 <u>0</u> CO ₃
6. Bicarbonate (HCO ₃)	HCO ₃	<u>120</u>	+ 61 <u>2</u> HCO ₃
7. Hydroxyl (OH)	OH	<u>0</u>	+ 17 <u>0</u> OH
8. Chlorides (Cl)	Cl	<u>700</u>	+ 35.5 <u>20</u> Cl
9. Sulfates (SO ₄)	SO ₄	<u>0</u>	+ 48 <u>0</u> SO ₄
10. Calcium (Ca)	Ca	<u>40</u>	+ 20 <u>2</u> Ca
11. Magnesium (Mg)	Mg	<u>19</u>	+ 12.2 <u>2</u> Mg
12. Total Hardness (CaCO ₃)		<u>180</u>	
13. Total Iron (Fe)		<u>50.0</u>	
14. Manganese		<u>1.1</u>	
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

Compound	Eqvly. Wt.	X	Mg/l	=	Mg/l
Ca(HCO ₃) ₂	81.04		<u>2</u>		<u>162</u>
CaSO ₄	88.07				
CaCl ₂	55.50				
Mg(HCO ₃) ₂	73.17				
MgSO ₄	60.19				
MgCl ₂	47.62		<u>2</u>		<u>95</u>
NaHCO ₃	84.00				
Na ₂ SO ₄	71.03				
NaCl	58.46		<u>18</u>		<u>1,052</u>

Saturation Values	Distilled Water 20°C
CaCO ₃	13 Mg/l
CaSO ₄ · 2H ₂ O	2,090 Mg/l
MgCO ₃	103 Mg/l

REMARKS NIH 8

Mesa Verde/Wasatch

WATER ANALYSIS REPORT

Company Coastal Address _____ Date 10-28-98

Source Conoco Mt. Lion 34-2 Date Sampled 10-22-98 Analysis No. _____
Mesa Verde/Wasatch

Analysis

1. PH 7.3
2. H₂S (Qualitative) .5
3. Specific Gravity 1.020

4. Dissolved Solids

23,770

5. Alkalinity (CaCO₃)

CO₃

0

+ 30 0 CO₃

6. Bicarbonate (HCO₃)

HCO₃

490

+ 61 8 HCO₃

7. Hydroxyl (OH)

OH

0

+ 17 0 OH

8. Chlorides (Cl)

Cl

14,200

+ 35.5 399 Cl

9. Sulfates (SO₄)

SO₄

0

+ 48 0 SO₄

10. Calcium (Ca)

Ca

800

+ 20 40 Ca

11. Magnesium (Mg)

Mg

122

+ 12.2 10 Mg

12. Total Hardness (CaCO₃)

2,500

13. Total Iron (Fe)

16

14. Manganese

1.3

15. Phosphate Residuals

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

40	Ca	←	HCO ₃	8
10	Mg	→	SO ₄	0
357	Na	→	Cl	399

Compound	Eqvly. Wt.	X	Meq/l	=	Mg/l
Ca(HCO ₃) ₂	81.04	<u>8</u>			<u>648</u>
CaSO ₄	88.07				
CaCl ₂	55.80	<u>32</u>			<u>1,776</u>
Mg(HCO ₃) ₂	73.17				
MgSO ₄	80.19				
MgCl ₂	47.82	<u>10</u>			<u>476</u>
NaHCO ₃	84.00				
Na ₂ SO ₄	71.03				
NaCl	58.46	<u>357</u>			<u>20,870</u>

Saturation Values

Distilled Water 20°C

CaCO₃

13 Mg/l

CaSO₄ · 2H₂O

2,090 Mg/l

MgCO₃

103 Mg/l

REMARKS Solids; Paraffin 25%, CaCO₃ 61%, Fe 14%

Upr Green River

WATER ANALYSIS REPORT

Company Coastal Address _____ Date 10-28-98

Source Conoco Tribal 31-55A Date Sampled 10-22-98 Analysis No. _____
Upper greenriver

	Analysis	mg/l(ppm)	*Meg/l
1. PH	<u>8.8</u>		
2. H ₂ S (Qualitative)	<u>6.0</u>		
3. Specific Gravity	<u>1.024</u>		
4. Dissolved Solids		<u>36,953</u>	
5. Alkalinity (CaCO ₃)	CO ₃	<u>240</u>	÷ 30 <u>8</u> CO ₃
6. Bicarbonate (HCO ₃)	HCO ₃	<u>7,600</u>	÷ 61 <u>124</u> HCO ₃
7. Hydroxyl (OH)	OH	<u>0</u>	÷ 17 <u>0</u> OH
8. Chlorides (Cl)	Cl	<u>15,600</u>	÷ 35.5 <u>439</u> Cl
9. Sulfates (SO ₄)	SO ₄	<u>120</u>	÷ 48 <u>3</u> SO ₄
10. Calcium (Ca)	Ca	<u>80</u>	÷ 20 <u>4</u> Ca
11. Magnesium (Mg)	Mg	<u>0</u>	÷ 12.2 _____ Mg
12. Total Hardness (CaCO ₃)		<u>200</u>	
13. Total Iron (Fe)		<u>.7</u>	
14. Manganese		<u>0</u>	
15. Phosphate Residuals			

Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

	Compound	Equly. Wt.	X	Meg/l	=	Mg/l
4	Ca(HCO ₃) ₂	81.04		<u>4</u>		<u>324</u>
0	CaSO ₄	88.07				
	CaCl ₂	55.50				
	Mg(HCO ₃) ₂	73.17				
	MgSO ₄	60.19				
	MgCl ₂	47.62				
	NaHCO ₃	84.00		<u>128</u>		<u>10,752</u>
	Na ₂ SO ₄	71.03		<u>3</u>		<u>213</u>
	NaCl	58.46		<u>439</u>		<u>25664</u>

Saturation Values

Distilled Water 20°C

CaCO₃

13 Mg/l

CaSO₄ · 2H₂O

2,090 Mg/l

MgCO₃

103 Mg/l

MARKS _____

EXHIBIT M

NBU #205

NW/SE SECTION 9, T10S-R22E

TD: 7263' (WASATCH) SD: 9/25/92

CSG: 5-1/2" @ 7263'

Test Mesaverde

- 10/6/92 Release drilling rig w/5-1/2" casing set @ 7263'.
- 10/92 MIRU Cutters WLS w/mast truck. Ran CBL-CCL-GR log from 7163' to surface w/1000 psi on csg. Good bond, TOC @ 1570'. Perf 9 holes 6436'-7078' w/4" csg gun and acidize. Test non-economic.
- 10/22/92 **Top down job.** Mix & displace LCM pill, 55 sx Class "G" w/2% CaCl₂, .7% CF-2, 3 pps Hi-Seal 3, 1/4 pps Cello Seal, 150 sx Class "G" w/2% CaCl₂ + .7% CF-2.

Complete Wasatch

- 12/92 MIRU Cutters WLS. Set 5-1/2" x 17# CIBP @ 6500'. Perf 9 zones, 12 holes w/4" csg guns, 1 JSPF, 4376'-6432' & acidize. EOT @ 4328.21. Flwg 1.0 MMCFD, FTP 550 psi, CP froze, 20/64" chk, 5-10 BWPD.
- 1/11/93 Frac perfs 4376'-6432' (13 holes) w/101,800 gal 40# CMHPG + 162 tons CO₂ (30% to 15%) + 280,000# 20/40 sand. AIR 30 BPM @ 2900 psi. ISIP 1650 psi, 5 min 1540 psi, 10 min 1500 psi, 15 min 1440 psi. SI 2-hrs. Start flow back @ 4:00 p.m. on 18/64" chk.

Clean out, Perf, Acidize, Install PLE

- 02/28/96 POH w/tbg. PU & RIH w/hydrostatic bailer. CO from 6302' to CIBP. Spot 2000 gal 15% HCl across perfs - circ 15± BW to pit. Let acid soak 3 hrs, circ out, spent acid & sand from 6429' to CIBP @ 6500'. RIH & broach prod tbg - 201 jts landed @ 6436'. Install plunger, run in w/swab tag fluid @ 2900'. Made 17 runs, swab back 102 bbls, 162 total, FFL 3100'. SITP 0 psi, FSICP 375 psi. SDFN.

Reperf & Acidize w/RBP & Packer

- 04/23/96 Perf 12 intervals 4376'-6432' 4 SPF 4" csg gun. PU RIH. RBP and pkr, set RBP @ 4600', pkr @ 4300'. Pump 7 bbls 15% KCl + additives 320# . 0.8 BPM. Rls pkr. PU RBP - reset @ 5350' pkr @ 4900', pump 20 bbls 15%. Rls pkr, PU RBP, reset @ 5850', set pkr @ 5350', pump 11 bbls 15%. Rls pkr, PU RBP, reset pkr @ 6350' - pump 7 bbls 8% HCl - Rls pkr, POH & reset pkr @ 4300'. Ru Swab, pull 3 runs, line part on 4th run. FL @ 2700' - Recovered 18 bbls, much acid - Start swab again FL 2700', pull 6 runs from 4150' - rec 30 bbls, total recovered 48 bbls. 66 LTR. Rls pkr and POH pkr and plug. RIH prod string, notch clr, SN 201 jts, broach tbg in hole. Land in donut - SN @ 6400±, EOT @ 6432'

Raise plunger operating depth

- 07/16/96 RU Delsco WL Unit, CP 825 psi, equilibize well. Run in retrieve plunger stdg vlv. Run in w/clr stop, set @ 5056'. Run in w/2 3/8" perf gun, shoot 4 holes in tubing from 5056'-5058'. Run in & PU clr stop & set @ 5028' & drop bumper spring & plunger and open well to separator. FL 4600'. TP 50 psi, CP 875 psi. Made 1 swab, run from 2700'-5000'. Well flowing. Put well to separator & RD Swab rig. Flowing 95 MMCF, 50 BW, 275 TP, 610 CP, on 30/64" chk.

EXHIBIT M1

NBU 205 - SWDW Conversion

NW SE Section 9 10S 22E

Uintah County, UT

March 2, 1999

ELEVATION: 5213' GL 5228' KB
TOTAL DEPTH: 7263' PBTD:7206' (6281- 10/3/95)
CASING: 8-5/8" 24# K-55 ST&C set @ 271'
5-1/2" 17# J-55 set @ 7263'
TUBING: Current - 2-3/8" 4.7# @ 4328'
Proposed -2-7/8" 6.5# N-80 plastic lined tubing @ 1400'
PERFORATIONS: Current - 4376-6432' 12 holes
Proposed - 1522-1620' 120 holes

PROCEDURE:

1. MIRUPU. Control well. NDWH NUBOP. POOH w/2-7/8" tubing.
2. RIH w/CICR on 2-7/8" tubing. Establish injection rate and set retainer @ 4200'. Cement squeeze Wasatch perms 4376-6432' w/275 sx Class G w/0.5% FLAC(1.15 ft3/sk, 15.8ppg 4.98 gal H2O/sk). Spot last 10 sx on top of CICR. Reverse out excess. POOH & LD all but 1400' of tubing.
3. MIRU Wireline Co. Set CIBP @ 2500'. Cap w/2 sx cmt. Perforate the following Upper Green River intervals w/a 3-1/8" casing gun loaded w/3 JSPF, 120 degree phasing.

1522-1532' 10' 30 holes
1540-1550' 10' 30 holes
1560-1570' 10' 30 holes
1610-1620' 10' 30 holes

Tie into GR/CBL dated 10/13/92 for depth control.

4. RIH w/retr pkr on 2-7/8" tubing. Set pkr @ 1400'. Swab well and obtain water sample for analysis. Run injection step rate test. If injectivity is limited and not sufficient, Acidize interval w/2000 gals 15% HCL w/additives and ball sealers. Surge balls off perms.
5. Rerun step rate test. Run static bottom hole pressure if stipulated by the EPA or State of Utah. POOH and LD tbg.

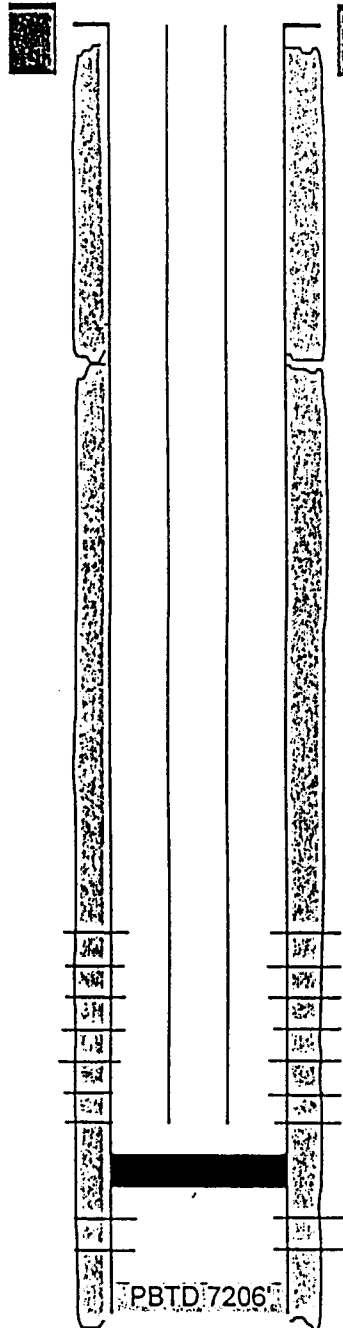
205 Conv Pro

6. RIH w/5-1/2" 17# Arrowset I-X injection packer w/teflon internal coating on 2-7/8" J-55 6.5#/ft tubing w/Duoline 10 lining. Circ well w/packer fluid(0.5% Techni-Hib and 1 gal Alta 133 biocide). Set pkr @ 1400'. Pressure test tbh/csg annulus to 1000 psi. State may want to witness integrity test.
7. NDBOP NUWH. RDMOPU.
8. Install surface facilities and connect gas supply.
 - 3-500 bbl tanks w/stairs
 - Line heater
 - J-60L Triplex w/building

NBU 205 SWDW
Section 9-10S-22E
NBU Field
Uintah Co., Utah

Current Wellbore Schematic

GL: 5213'
KB: 5228'



8-5/8" set @ 271' & cemented to surface.

Top down cement job pumped 10/22/92

Primary cement top at 1570' 10/13/92

Well is Shut-In: Uneconomic

Perfs 4376-6436'
1 spf 12 holes

2-3/8" tubing @ 6436' w/SN @ 6402'

CIBP @ 6500' set 10/92

Perfs 6550-7078'

5-1/2" 17# N-80 @ 7263'

NBU 205 SWDW
Section 9-10S-22E
NBU Field
Uintah Co., Utah

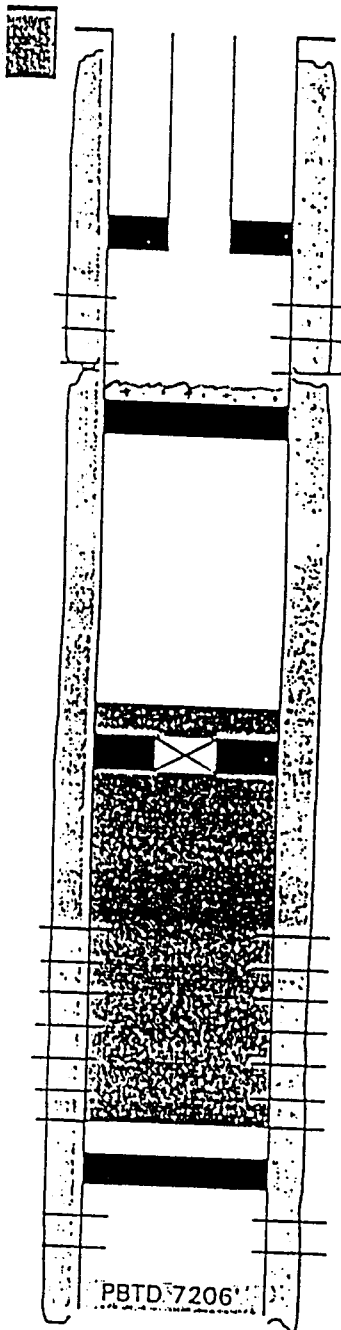
Proposed Wellbore Schematic

GL: 5213'
KB: 5228'

Proposed Perfs
1522-32'
1540-50'
1560-70'
1610-20'

Perfs 4376-6436'
1 spf 12 holes
Squeezed w/240 sx

Perfs 6550-7078'



8-5/8" set @ 271' & cemented to surface.

Top down cement job pumped 10/22/92

2-7/8" 6.5# N-80 EUE plastic-lined tubing w/pkr @ 1400'

Primary cement top at 1570' 10/13/92

CIBP @ 2500' w/2 sx cmt

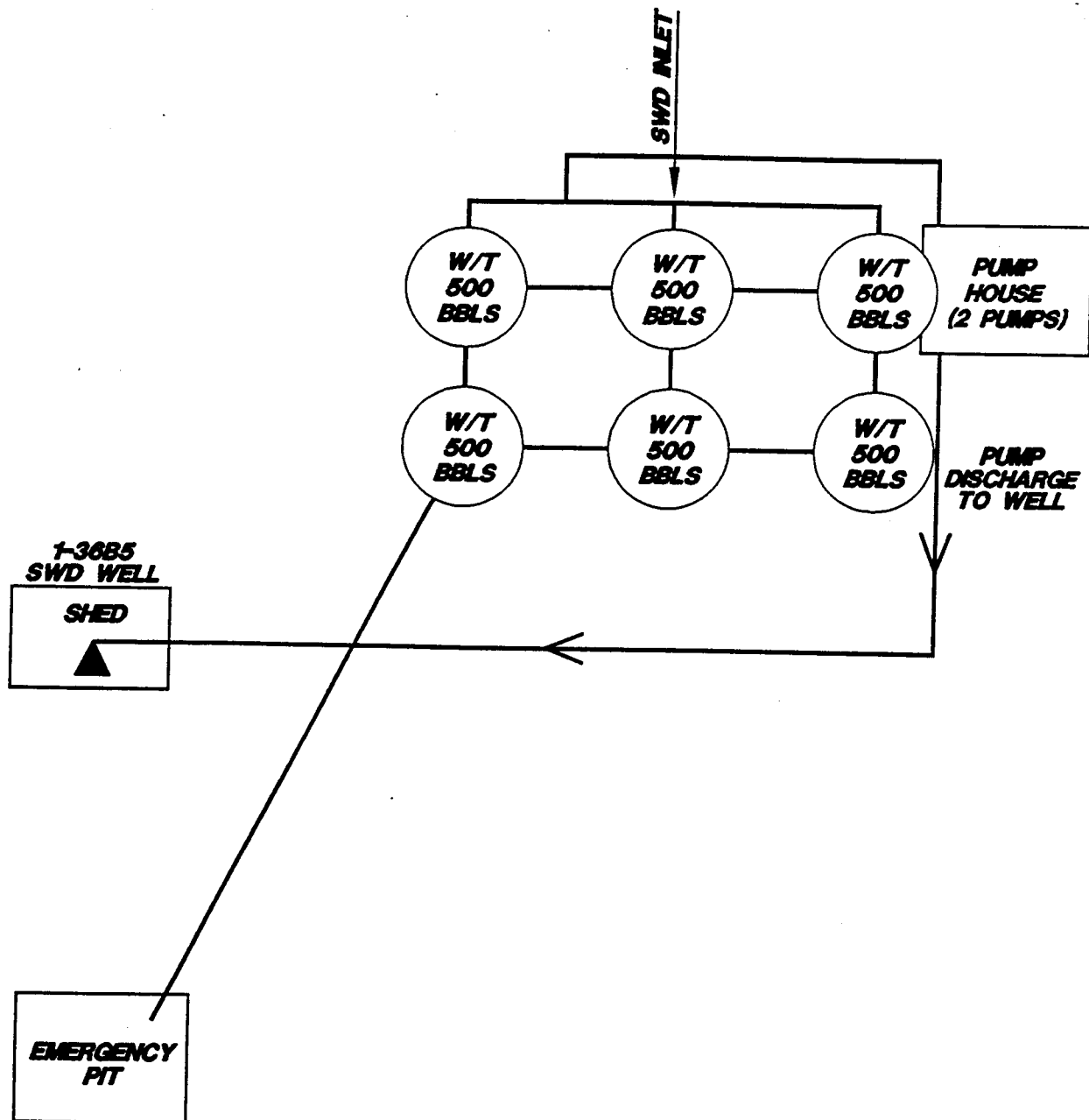
CICR @ +/-4200' w/10 sx cement on top

CIBP @ 6500' set 10/92

PBTD 7206'

5-1/2" 17# N-80 @ 7263'

Exhibit M4



Coastal Oil & Gas Corporation
A SUBSIDIARY OF THE COASTAL CORPORATION
The Energy People

NATURAL BUTTES UNIT
UINTAH COUNTY, UTAH
PROPOSED SWD FACILITY

NBU 205
SEC. 9 T10S-R22E

SCALE: NONE

JANUARY, 1999

EXHIBIT Q
NBU 205 - SWDW P&A Plan
NW SE Section 9-10S-22E
Uintah County, UT
January 13, 1999

ELEVATION: 5213' GL; 5228' KB
TOTAL DEPTH: 7263' PBTD: 7206' (6281' - 10/3/95 SLM)
CASING: 8", 24#, K-55 ST&C set @ 271'
5½", 17#, J-55 set @ 7263'
TUBING: Current - 2-3/8" 4.7# @ 4328'
Proposed - 2-7/8", 6.5#, N-80 plastic-lined tubing @ 1400'
PERFORATIONS: Current - 4376'-6432' 12 holes
Proposed - 1522'-1620' 120 holes

P&A Plan:

1. Obtain permit from regulatory agencies for P&A proceedings.
2. MIRU pulling unit. Control well. ND WH, NU BOP's. Unscat packer and POOH w/2" lined tbg.
3. RU W/L. Set CICR at 1400'. PU & TIH w/tbg. Sting into retainer and establish injection rate. Cement squeeze perfs 1522-1620' w/75 sxs class G w/0.5% FLAC (1.15 ft3/sk, 15.8 ppg, 4.98 gal H2O/sk). Spot last 10 sxs on top of CICR. Reverse circulate excess f/well.
4. POOH to 250'. Spot surface plug and POOH.
5. ND BOP's. Cut casing at state-required depth and install cap plate. RDMO PU.

TWH

EXHIBIT Q1

NBU 205 SWDW
Section 9-10S-22E
NBU Field
Uintah Co., Utah

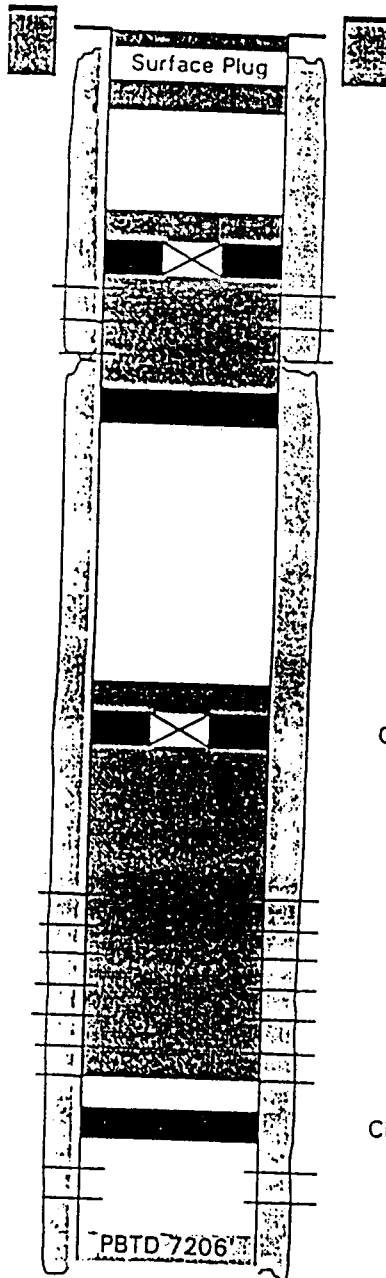
Proposed Schematic @ P&A

GL: 5213'
KB: 5228'

Proposed Perfs 1522-32'
1540-50'
1560-70'
1610-20'

Perfs 4376-6436'
1 spf 12 holes
Squeezed w/240 sx

Perfs 6550-7078'



8-5/8" set @ 271' & cemented to surface.

Top down cement job pumped 10/22/92

CICR @ +/-1400'. Perforations squeezed below w/10 sx on top

Primary cement top at 1570' 10/13/92

CIBP @ 2500 w/2 sx cmt

CICR @ +/-4200' w/10 sx cement on top

CIBP @ 6500' set 10/92

5-1/2" 17# N-80 @ 7263'

EPA

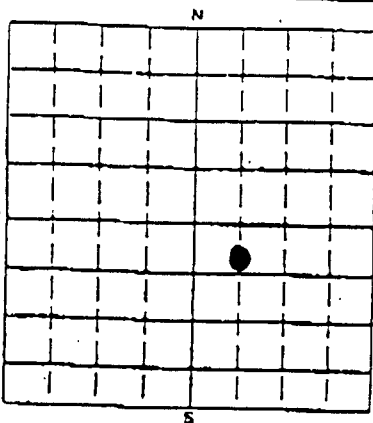
PLUGGING AND ABANDONMENT PLAN

NAME AND ADDRESS OF FACILITY

NBU #205 WDW

NAME AND ADDRESS OF OWNER/OPERATOR

/Coastal Oil and Gas Corp
600 17th Street, Suite 800S
/Denver, CO 80201

LOCATE WELL AND OUTLINE UNIT ON
SECTION PLAT - 640 ACRES

STATE

COUNTY

UT

Uintah

PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

NW 1/4 of SE 1/4 of 1/4 of 1/4 of Section 9 Township 10S Range 22E

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface
Location 1981 ft. from (W/S) SE Line of quarter section,
and 1808 ft. from (E/W) SE Line of quarter section

TYPE OF AUTHORIZATION

- ☒ Individual Permit
☐ Area Permit
☐ Rul.

Number of Wells 1

WELL ACTIVITY

- ☐ CLASS I
☒ CLASS II
☒ Brine Disposal
☐ Enhanced Recovery
☐ Hydrocarbon Storage
☐ CLASS III

Lease Name Natural ButtesWell Number #205

CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT/LB/FT	TO BE PUT IN WELL (FT)	TO BE LEFT IN WELL (FT)	MOLE SIZE
5-1/2	17 J-55		7263	

METHOD OF EMPLACEMENT OF CEMENT PLUGS

- ☐ The Balance Method
☒ The Dump Bailer Method
☐ The Two-Plug Method
☒ Other Squeeze w/cmt retrnr
Retnr's @ 4200' & 2500'

CEMENTING TO PLUG AND ABANDON DATA:

	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Use of Hole or Pipe in which Plug Will Be Placed (inches)	5-1/2	5-1/2	5-1/2	5-1/2			
Depth to Bottom of Tubing or Drill Pipe (ft.)	4200'	2500'	1400'	300'			
Sacks of Cement To Be Used (each plug)	240	2	85	25			
Slurry Volume To Be Pumped (cu. ft.)	269	2.24	98	29			
Calculated Top of Plug (ft.)	4100	2480	1300	surf			
Measured Top of Plug (if tagged ft.)							
Slurry Wt (LB./Gal.)	15.8	15.8	15.8	15.8			
Type Cement or Other Material (Class III)	G	G	G	G			

LIST ALL OPEN MOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (If any)

From	To	From	To
4376	Perfs	6436	
1522		1629	

Estimated Cost to Plug Wells

\$10,000

CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

NAME AND OFFICIAL TITLE (Please type or print)

Sheila Bremer
Environmental & Safety Analyst

SIGNATURE

DATE SIGNED

3/17/99

APPLICATION FOR INJECTION WELL - UIC FORM 1

OPERATOR Coastal Oil & Gas Corporation
ADDRESS P. O. Box 749
Denver, Colorado 80201-0749

Well name and number: NBU #205

Field or Unit name: Natural Buttes Unit Lease no. U-01196-D

Well location: QQ NW/SE section 9 township 10S range 22E county Uintah

Is this application for expansion of an existing project? . . Yes ☐ No ☒

Will the proposed well be used for: Enhanced Recovery? . . Yes ☐ No ☒
Disposal? Yes ☒ No ☐
Storage? Yes ☐ No ☒

Is this application for a new well to be drilled? Yes ☐ No ☒

If this application is for an existing well,
has a casing test been performed on the well? Yes ☐ No ☒
Date of test: N/A

API number: 43-047-32344

Proposed injection interval: from 1510' to 1655'

Proposed maximum injection: rate 2000 BPD pressure 450 psig

Proposed injection zone contains ☐ oil, ☐ gas, and/or ☐ fresh water within 1/2 mile of the well. There are no water wells within 1/2 mile.

IMPORTANT: Additional information as required by R615-5-2 should accompany this form.

List of Attachments: Sundry Notice; Conversion Procedure; Proposed Well Schematic;
Current Well Schematic; Plat Map; Elogs; Water Analysis; Geologic Data

I certify that this report is true and complete to the best of my knowledge.

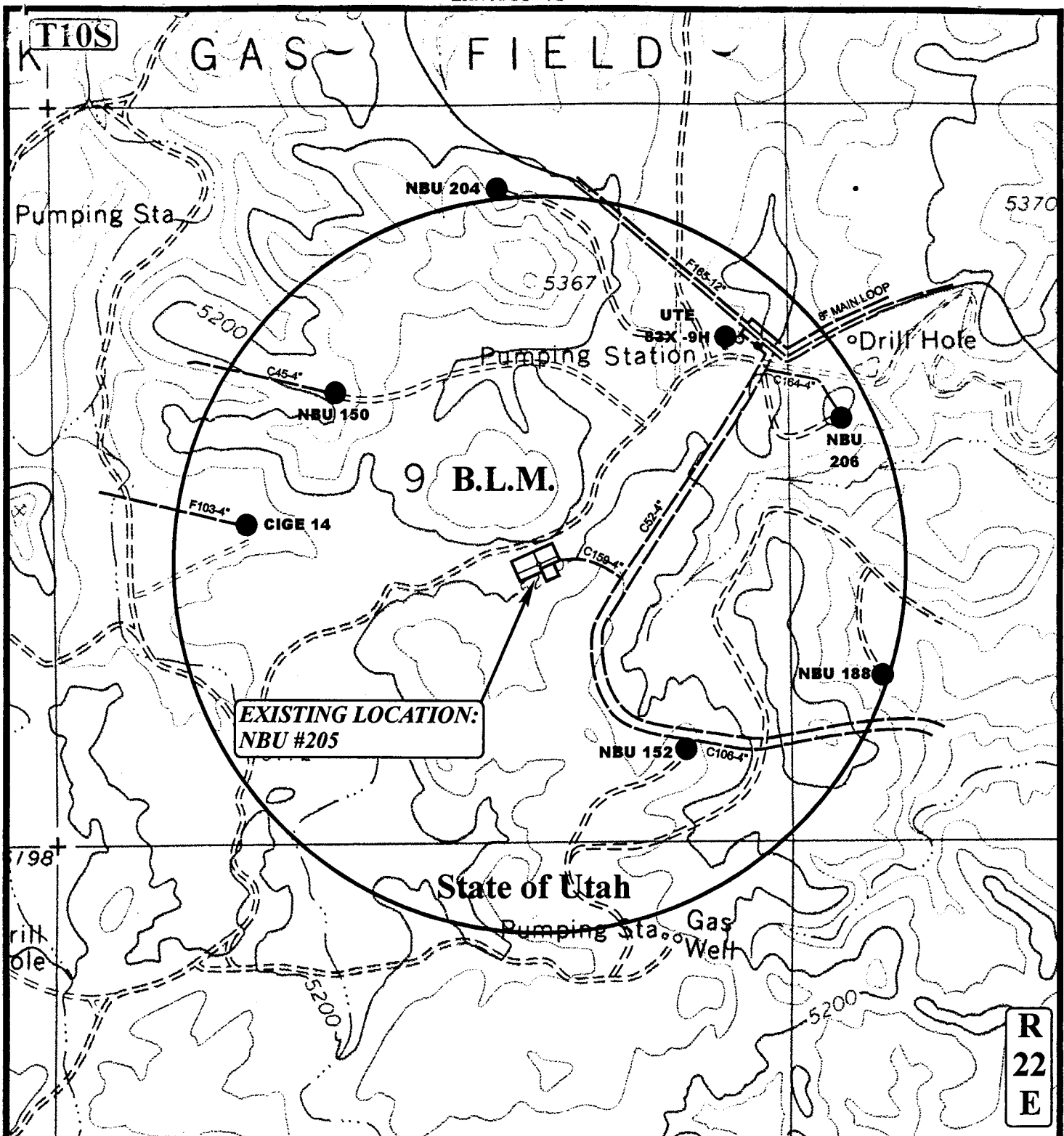
Name W. L. Donnelly
Title Vice President
Phone No. (303) 572-1112

Signature *W. L. Donnelly*
Date 11/29/91

(State use only)

Application approved by _____ Title _____
Approval Date _____

Comments:

**LEGEND:**

- ===== EXISTING ROAD
- EXISTING 12" PIPELINE
- EXISTING 10" PIPELINE
- EXISTING 8" PIPELINE
- EXISTING 6" PIPELINE
- EXISTING 4" PIPELINE
- EXISTING WELL LOCATION

COASTAL OIL & GAS CORP**NBU #205**

SECTION 9, T10S, R22E, S.L.B.&M.
1981' FSL 1808' FEL



Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

AFFIDAVIT OF
SURFACE INSPECTION

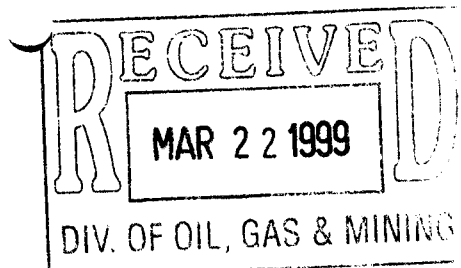
10 **21** **98**
 MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: D.COX REVISED: 2-25-99

1
 TOPO



March 17, 1999



UIC Permit Application

NBU #205 43-047-32344

Natural Buttes Unit

Uintah County, Utah

Sec. 9, 10S, 22E

Mr. Mike Hebertson
State of Utah
Division of Oil, Gas & Mining
1594 West North Temple
Suite 1210
Salt Lake City, Utah 84114

Dear Mr. Hebertson:

Please find attached an amended copy of the above referenced UIC Permit Application. Per your phone conversation with Steve Rawlings of Buys & Associates during the week of February 22, 1999, the following items were addressed:

Confining Zones and Lithology - Initially only the upward confining zone and lithology were described. Added on Page 5, Section G is the following: Downward movement will be prevented by tight sand streaks and impermeable oil shales at the base of the Upper Green River Formation.

Geologic Description and Injection Interval - The geologic description and the gross thickness of the intended injection interval of the Upper Green River Formation has been rewritten and clarified in Section G. Step 3 of the conversion procedure has been rewritten and includes 4-10' sands that will be perforated within the gross injection interval.

Step Rate Test - Step rate testing will be performed in steps 4 and 5 of the conversion procedure. If the estimated fracture gradient of 0.65 psi/ft is significantly different, both the State and EPA will be notified and the maximum surface injection pressure will be adjusted accordingly.

Cement Bond Log - Additional top-down jobs were performed during the week of February 22, 1999, and a third CBL was run. A copy was sent directly to you.

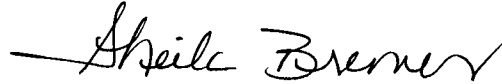
Coastal Oil & Gas Corporation

A SUBSIDIARY OF THE COASTAL CORPORATION

600 17TH ST • STE 800 S • P O BOX 749 • DENVER CO 80201-0749 • 303/572-1121

If you have any additional questions or need further clarification, please don't hesitate to call Steve Rawlings of Buys & Associates (303-730-2500) or me (303-573-4455).

Sincerely,

A handwritten signature in cursive script that reads "Sheila Bremer". The signature is written in dark ink and is positioned above the printed name and title.

Sheila Bremer
Environmental & Safety Analyst

Attachments



March 17, 1999

UIC Permit Application
UIC Permit No.: UT2864-04501
NBU #205
Natural Buttes Unit
Uintah County, Utah

Mr. Dan Jackson
Groundwater Program
Mail Code 8P-W-GW
U.S. Environmental Protection Agency, Region VIII
999 18th Street, Suite 500
Denver, Colorado 80202-2466

Dear Mr. Jackson:

Please find attached an amended copy of the above referenced UIC Permit Application. Per your letter dated February 12, 1999, and your phone conversation on March 3, 1999, with Steve Rawlings at Buys & Associates, the following items were addressed:

Potential USDW's - Formations above the injection zone may contain possible USDW zones, however no USDW wells have been drilled therefore potential formations cannot be identified. (This was added on Page 4, Section E.)

Confining Zones and Lithology - Initially only the upward confining zone and lithology were described. Added on Page 5, Section G was the following: Downward movement will be prevented by tight sand streaks and impermeable oil shales at the base of the Upper Green River Formation.

Fracture Pressure Identification - A maximum surface injection pressure (MIP) was calculated using a typical fracture gradient of 0.65 psi/ft within the Natural Buttes Field. A step rate test will be performed in steps 4 and 5 of the conversion procedure to verify this. Depending on results, adjustments to the MIP will be made accordingly and submitted to the EPA and State of Utah. (This was added on Page 5, Section H.)

Plugging and Abandonment Plan - EPA Form 7520-14 has been completed and is included as Exhibit Q.

Coastal Oil & Gas Corporation

A SUBSIDIARY OF THE COASTAL CORPORATION

600 17TH ST • STE 800 S • P O BOX 749 • DENVER CO 80201-0749 • 303/572-1121

If you have any additional questions or need further clarification, please don't hesitate to call Steve Rawlings (303-730-2500) or me (303-573-4455).

Sincerely,

A handwritten signature in cursive script that reads "Sheila Bremer". The signature is written in dark ink and is positioned above the printed name and title.

Sheila Bremer
Environmental & Safety Analyst

Attachment

cc: Ferron Secakuku, Ute Tribe
Charles Cameron, BIA
Jerry Kenzcka, BLM
Dan Jarvis, State of Utah DOGM

UNDERGROUND INJECTION CONTROL

PERMIT APPLICATION

**NBU #205
NW/SE Section 9 - T10S - R22E
Uintah County, Utah**

March 4, 1999

Prepared for:

*Ms. Sheila Bremer
Environmental and Safety Analyst
Coastal Oil & Gas Corporation
600 17th Street
Suite 800 South
Denver, Colorado 80201*

Prepared by:

**BUYS & ASSOCIATES, INC.
8000 South Lincoln, Suite 10-2
Littleton, Colorado 80122
(303) 730-2500
FAX (303) 730-2522**

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UNDERGROUND INJECTION CONTROL PERMIT APPLICATION - EPA UIC FORM 4	3
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ATTACHMENTS TO EPA UIC FORM 4	4
-------------------------------------	---

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Exhibit E - Well Log Copies	attached pocket
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Form 4 UIC	 EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY UNDERGROUND INJECTION CONTROL PERMIT APPLICATION <i>(Collected under the authority of the Safe Drinking Water Act, Sections 1421, 1422, 40 CFR 144)</i>	I. EPA ID NUMBER 																																											
READ ATTACHED INSTRUCTIONS BEFORE STARTING FOR OFFICIAL USE ONLY																																														
Application approved mo day year		Date Received mo day year																																												
		Permit/Well Number																																												
		Comments																																												
II. FACILITY NAME AND ADDRESS Facility Name NEU #205 Street Address NW/SE 9-10S-22E City Utah County		III. OWNER/OPERATOR AND ADDRESS Owner/Operator Name Coastal Oil and Gas Corporation Street Address 600 17th Street, Suite 800 South City Denver State Co ZIP Code 80201																																												
IV. OWNERSHIP STATUS (Mark 'x') <input checked="" type="checkbox"/> A. Federal <input type="checkbox"/> B. State <input type="checkbox"/> C. Private <input type="checkbox"/> D. Public <input type="checkbox"/> E. Other (Explain)		V. SIC CODES 1311																																												
VI. WELL STATUS (Mark 'x') <input type="checkbox"/> A. Operating Date Started: mo day year <input checked="" type="checkbox"/> B. Modification/Conversion <input type="checkbox"/> C. Proposed																																														
VII. TYPE OF PERMIT REQUESTED (Mark 'x' and specify if required) <input checked="" type="checkbox"/> A. Individual <input type="checkbox"/> B. Area Number of Existing wells Number of Proposed wells Name(s) of field(s) or project(s) Natural Buttes Unit																																														
VIII. CLASS AND TYPE OF WELL (see reverse) A. Class(es) (enter code(s)) B. Type(s) (enter code(s)) C. If class is "other" or type is code "x," explain D. Number of wells per type (if area permit) II D																																														
IX. LOCATION OF WELL(S) OR APPROXIMATE CENTER OF FIELD OR PROJECT <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="3">A. Latitude</th> <th colspan="3">B. Longitude</th> <th colspan="3">Township and Range</th> <th colspan="3">Feet from</th> <th colspan="3">Line</th> </tr> <tr> <td>Deg</td><td>Min</td><td>Sec</td> <td>Deg</td><td>Min</td><td>Sec</td> <td>Twsp</td><td>Range</td><td>Sec</td> <td>1/4 Sec</td><td>Feet from</td><td>Line</td><td>Feet from</td><td>Line</td> </tr> <tr> <td></td><td></td><td></td> <td></td><td></td><td></td> <td>10S</td><td>22E</td><td>9</td> <td>SE</td><td>1808</td><td>E</td><td>1981</td><td>S</td> </tr> </table>				A. Latitude			B. Longitude			Township and Range			Feet from			Line			Deg	Min	Sec	Deg	Min	Sec	Twsp	Range	Sec	1/4 Sec	Feet from	Line	Feet from	Line							10S	22E	9	SE	1808	E	1981	S
A. Latitude			B. Longitude			Township and Range			Feet from			Line																																		
Deg	Min	Sec	Deg	Min	Sec	Twsp	Range	Sec	1/4 Sec	Feet from	Line	Feet from	Line																																	
						10S	22E	9	SE	1808	E	1981	S																																	
X. INDIAN LANDS (Mark 'x') <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Within Ute Tribal Boundary																																														
XI. ATTACHMENTS (Complete the following questions on a separate sheet(s) and number accordingly; see instructions) FOR CLASSES I, II, III (and other classes) complete and submit on separate sheet(s) Attachments A — U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application:																																														
XII. CERTIFICATION I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)																																														
A. Name and Title (Type or Print) W. L. Donnelly, Vice President, Coastal Oil & Gas Corp.		B. Phone No. (Area Code and No.) 303-572-1112																																												
C. Signature 		D. Date Signed 1/29/99																																												

ATTACHMENTS TO EPA UIC FORM 4

A. AREA OF REVIEW METHODS AND NOTIFICATION OF LAND OWNERS

The area of review is a fixed radius of one-quarter (1/4) mile from the wellbore. The Bureau of Land Management (BLM) is the surface and mineral rights owner of the 160 acre quarter section on which the NBU #205 is located. As per the State of Utah requirements, Exhibit A shows all property owners within a half (1/2) mile radius of the wellbore. Please note the surface owner and mineral rights owner for all lands within a half (1/2) mile of the wellbore is the BLM.

The wellbore is located within the greater boundary of Ute Tribal Lands.

B. MAPS OF WELLS AND AREA OF REVIEW

Exhibit B - Affidavit of Surface Inspection - provides topography, surface ownership, surrounding oil/gas wells, road access, and other existing surface facilities within a half (1/2) mile radius of the proposed injection well NBU #205.

C. CORRECTIVE ACTION PLAN AND WELL DATA

There are no other wells within the 1/4 mile area of review.

E. NAME AND DEPTH OF USDWs (Class II)

According to the State of Utah, Water Resource Division database, there are no water wells within the area of review. Formations above the injection zone may contain possible USDW zones, however no USDW wells have been drilled therefore potential formations cannot be identified.

The Bird's Nest Member of the Upper Green River Formation is the intended injection zone. Tests have not been run to determine the TDS content of the Upper Green River zones in the NBU #205. As part of the well conversion procedure, step 4 of Exhibit M1, the Bird's Nest Member will be swabbed for a water sample. The water sample will be tested for TDS and the analytical results reported to the EPA.

The proposed injection zone correlates to the injection zone in the NBU #159, located about four miles northwest of the proposed disposal well. The TDS content of the Birds Nest zone in this well varies from 23,000 mg/l to 65,000 mg/l. This TDS content disqualifies the water as an underground source of drinking water (USDW) and is, therefore, not subject to the protection afforded in 40CFR 144.7(a).

Formations below the Bird's Nest Member will be isolated by casing and cement, CICR and cement, and CIBP and cement according to Exhibits M1, M2, and M3.

See Exhibit E for well log copies (attached log pocket).

G. GEOLOGIC DATA ON INJECTION AND CONFINING ZONES (CLASS II)

Injection will be limited to the gross Bird's Nest Member (local name) of the Upper Green River Formation which is at a depth of 1510' to 1655' and has a gross thickness of 145'. Within this interval a total of 40 net feet will be perforated. If the injection capacity within this perforated interval is limited, the permittee may find it necessary to perforate additional intervals within the gross interval of 1510-1655'. These additions may be added later and will be reported on EPA Form 7520-12.

The Bird's Nest zone sands, which extend over a 145' interval, are individually separated by calcareous shales which act as isolation barriers/confining zones for injected fluids. The Uintah Formation extends from the surface to 1470' (**upper confining zone**), and is composed of interbedded thick impervious confining shales, thinner marls and siltstones, and thin sand stringers. This lithology should provide an effective barrier to upward movement of injected fluids. Downward movement will be prevented by tight sand streaks and impermeable oil shales at the base of the Upper Green River Formation. In addition, the conversion of the subject well will include a surface to 1570' cement plug in the annulus between well casing and formation above the top perforated interval

H. OPERATING DATA

- 1) Average Daily Injection Rate = 750 BPD
Maximum Daily Injection Rate = 2000 BPD
Total Volume of Fluids to be Injected = 5,475,000 BBL
(Assuming a 20 year life for the well.)
- 2) Average Injection Pressure = 200 psi
Maximum Injection Pressure = 350 psi. This is based on a typical frac gradient of 0.65 psi/ft within the Natural Buttes Field. A step rate test will be performed in steps 4 & 5 of the conversion procedure to verify this prior to the start of injection. Adjustments to the MIP will be made accordingly and submitted to the EPA and State.
- 3) Nature of Casing-Tubing Annulus Fluid: Fresh water with corrosion inhibitor or packer fluid.
- 4) Not applicable - Class I wells only.
- 5) Coastal Oil and Gas owns and operates certain oil/gas wells located in the area. Water to be injected into the NBU #205 will come from those wells. Exhibit H shows the water analyses run on these wells.

J. STIMULATION PROGRAM

Based on results of the injection step rate test it may be necessary to stimulate the well. If needed, the proposed injection zone will be acidized with 2000 gallons of 15% HCL. Another injection step rate test will be performed.

K. INJECTION PROCEDURES

The injected fluid will be delivered to the disposal site by pipeline or truck. A Triplex pump will be used to pump fluids down the tubing into the injection zone. Pressure controllers will shut down the Triplex pump when the maximum allowable injection pressure is reached.

Water storage will consist of two 500 bbl tanks and one 500 bbl skim tank. Level controllers on the storage tanks will automatically shut down the Triplex pump at low fluid levels. Any accumulations of crude oil carryover will be removed and disposed from the skim tank.

M. CONSTRUCTION DETAILS

See Exhibit M for details on well data and history. See Exhibit M1 for a detailed conversion to injection procedure. Exhibit M2 presents the current wellbore construction schematic. Exhibit M3 details the proposed wellbore construction schematic. Exhibit M4 provides a detailed surface facility diagram.

O. PLANS FOR WELL FAILURE

In the event the well is shut-in, whether manually or automatically, Coastal will take the following steps:

- 1) Determine the nature and extent of the failure causing the shut-in.
- 2) In the event the well cannot continue to operate as stipulated by the UIC permit the well will be temporarily shut-in. If the EPA grants permission to continue operations the well will be brought back on line.
- 3) An EPA representative will be contacted to discuss the reason for well failure and to determine corrective action.
- 4) If well shut-in is imminent then injection fluids will be diverted to other authorized disposal facilities.
- 5) In the event of a need for clean up/remediation then operations will proceed in accordance with Coastal emergency response plans and in accordance with applicable rules and regulations.

P. MONITORING PROGRAM

Coastal will monitor the water quality of the injection fluids on an annual basis. Analysis will include TDS, pH, specific conductivity and specific gravity. Any time there is a change in the source of the injection fluid a water quality analysis will be performed and submitted to the EPA for approval prior to injection disposal.

Q. PLUGGING AND ABANDONMENT PLAN

See Exhibit Q - Plugging and Abandonment Plan.

See Exhibit Q1 for the Proposed Plugging and Abandonment wellbore schematic.

R. NECESSARY RESOURCES

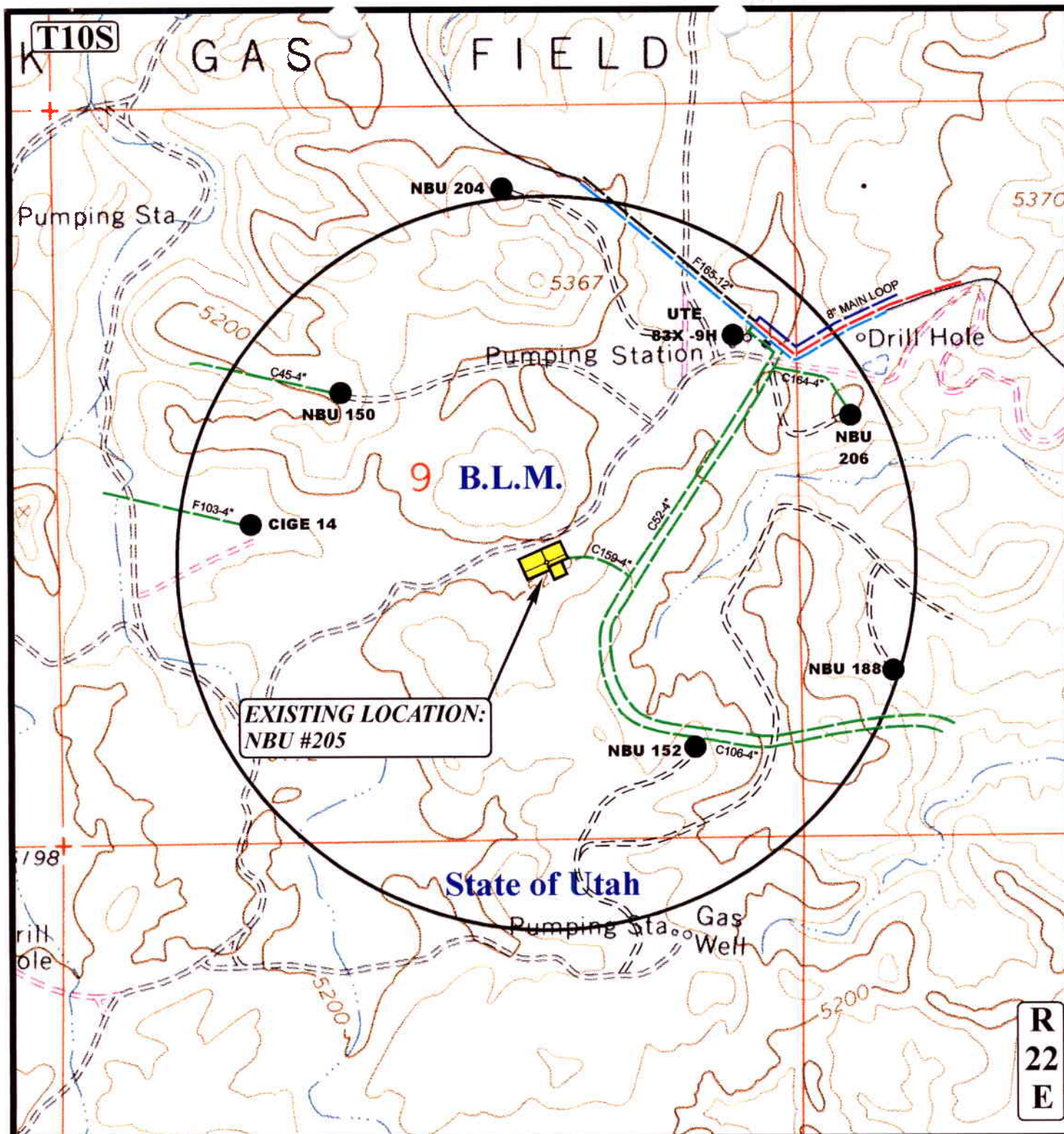
Coastal Oil & Gas Corporation has Bond # U605243-56 in place with the EPA to cover plugging and abandonment costs of appropriate SWD facilities. This bond has been amended to include the NBU #205. The new rider for this bond was mailed directly to Judy Binegar-Wilson at the EPA.

U. DESCRIPTION OF BUSINESS

Coastal Oil & Gas Corporation is an oil and gas exploration and production company.

V. STATE OF UTAH PERMIT

See Exhibit V - State of Utah, Application for Injection Well, UIC Form 1; Exhibit V1 for Affidavit of Surface Inspection - 1/2 mile radius and for surface ownership within a 1/2 mile radius.

**LEGEND:**

- EXISTING ROAD
- EXISTING 12" PIPELINE
- EXISTING 10" PIPELINE
- EXISTING 8" PIPELINE
- EXISTING 6" PIPELINE
- EXISTING 4" PIPELINE
- EXISTING WELL LOCATION

COASTAL OIL & GAS CORP**NBU #205****SECTION 9, T10S, R22E, S.L.B.&M.****1981' FSL 1808' FEL****N**

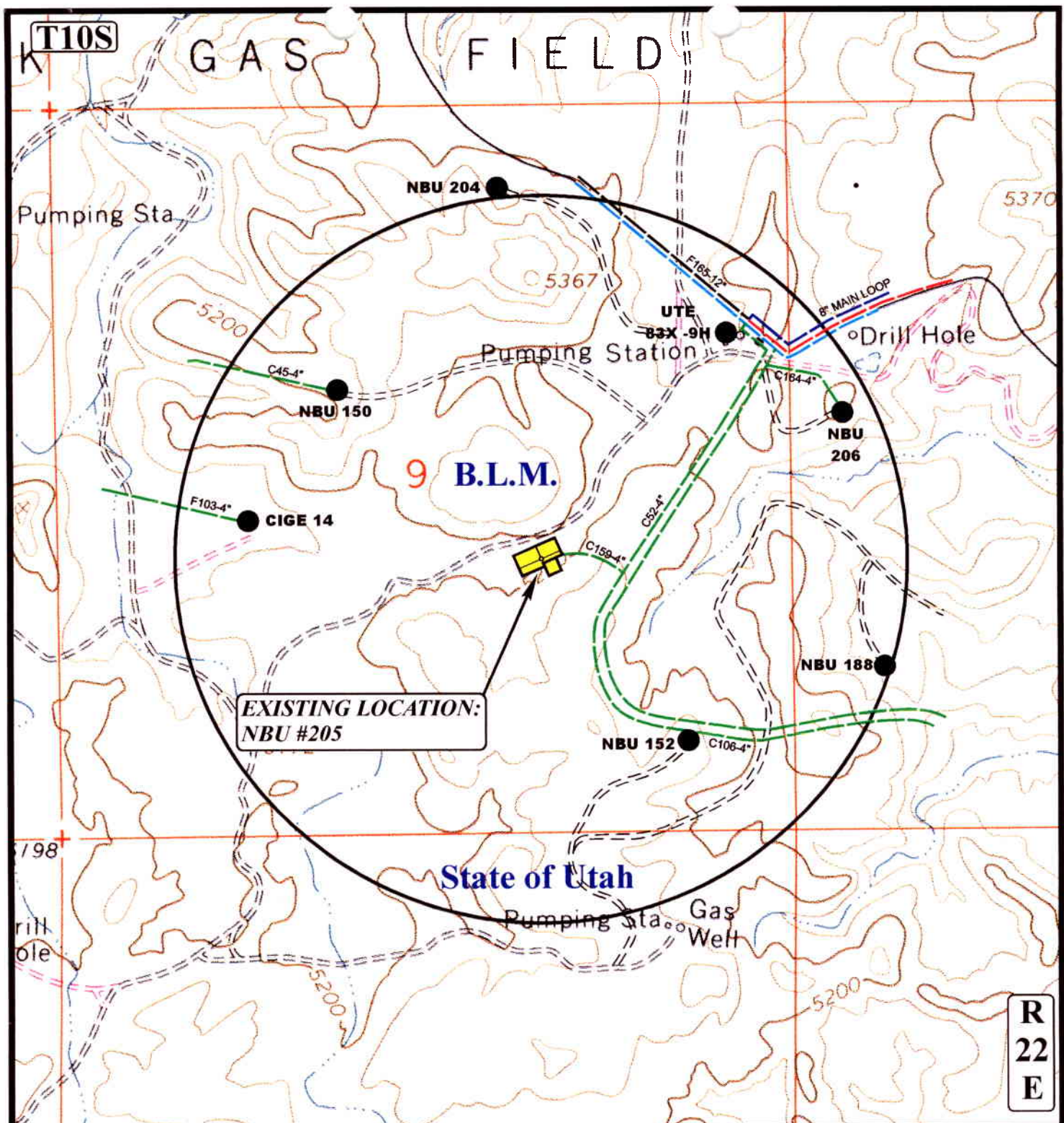
Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

**AFFIDAVIT OF
 SURFACE INSPECTION**

10 21 98
 MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: D.COX REVISED: 2-25-99

1
TOPO

**LEGEND:**

- EXISTING ROAD
- EXISTING 12" PIPELINE
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10 21 98
 MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: D.COX REVISED: 2-25-99

1
 TOPO

EXHIBIT H

Water Analysis of Injection Fluids

UNICHEM

A Division of BJ Services

P.O. Box 217
Roosevelt, Utah 84066

Wasatch
Office (435) 722-5086
Fax (435) 722-5727

WATER ANALYSIS REPORT

Company Coastal Address _____ Date 10-28-98
Source Conoco Jenks 5-11 Date Sampled 10-22-98 Analysis No. _____
Wasatch

	Analysis	mg/l(ppm)	*Mg/l
1. PH	<u>6.0</u>		
2. H ₂ S (Qualitative)	<u>.5</u>		
3. Specific Gravity	<u>1.004</u>		
4. Dissolved Solids		<u>1,309</u>	
5. Alkalinity (CaCO ₃)		CO ₃ <u>0</u>	÷ 30 <u>0</u> CO ₃
6. Bicarbonate (HCO ₃)		HCO ₃ <u>120</u>	÷ 61 <u>2</u> HCO ₃
7. Hydroxyl (OH)		OH <u>0</u>	÷ 17 <u>0</u> OH
8. Chlorides (Cl)		Cl <u>700</u>	÷ 35.5 <u>20</u> Cl
9. Sulfates (SO ₄)		SO ₄ <u>0</u>	÷ 48 <u>0</u> SO ₄
10. Calcium (Ca)		Ca <u>40</u>	÷ 20 <u>2</u> Ca
11. Magnesium (Mg)		Mg <u>19</u>	+ 12.2 <u>2</u> Mg
12. Total Hardness (CaCO ₃)		<u>180</u>	
13. Total Iron (Fe)		<u>50.0</u>	
14. Manganese		<u>1.1</u>	
15. Phosphato Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

Compound	Equly. Wt.	X	Mg/l	=	Mg/l
Ca(HCO ₃) ₂	81.04	<u>2</u>			<u>162</u>
CaSO ₄	88.07				
CaCl ₂	55.50				
Mg(HCO ₃) ₂	73.17				
MgSO ₄	60.19				
MgCl ₂	47.62	<u>2</u>			<u>95</u>
NaHCO ₃	84.00				
Na ₂ SO ₄	71.03				
NaCl	58.46	<u>18</u>			<u>1,052</u>

Saturation Values

Distilled Water 20°C

CaCO₃

13 Mg/l

CaSO₄ · 2H₂O

2,090 Mg/l

MgCO₃

103 Mg/l

REMARKS NH4 8

WATER ANALYSIS REPORT

Company Coastal Address _____ Date 10-28-98

Source Conoco Mt. Lion 34-2 Date Sampled 10-22-98 Analysis No. _____
Mesa Verde/Wasatch

Analysis

mg/l(ppm)

*Mg/l

1. PH	<u>7.3</u>		
2. H ₂ S (Qualitative)	<u>.5</u>		
3. Specific Gravity	<u>1.020</u>		
4. Dissolved Solids	<u>23,770</u>		
5. Alkalinity (CaCO ₃)	CO ₃ <u>0</u>	+ 30 <u>0</u>	CO ₃
6. Bicarbonate (HCO ₃)	HCO ₃ <u>490</u>	+ 61 <u>8</u>	HCO ₃
7. Hydroxyl (OH)	OH <u>0</u>	+ 17 <u>0</u>	OH
8. Chlorides (Cl)	Cl <u>14,200</u>	+ 35.5 <u>399</u>	Cl
9. Sulfates (SO ₄)	SO ₄ <u>0</u>	+ 48 <u>0</u>	SO ₄
10. Calcium (Ca)	Ca <u>800</u>	+ 20 <u>40</u>	Ca
11. Magnesium (Mg)	Mg <u>122</u>	+ 12.2 <u>10</u>	Mg
12. Total Hardness (CaCO ₃)	<u>2,500</u>		
13. Total Iron (Fe)	<u>16</u>		
14. Manganese	<u>1.3</u>		
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

Compound	Eqv. Wt.	X	Mg/l	=	Mg/l
Ca(HCO ₃) ₂	81.04	<u>8</u>			<u>648</u>
CaSO ₄	88.07				
CaCl ₂	55.50	<u>32</u>			<u>1,776</u>
Mg(HCO ₃) ₂	73.17				
MgSO ₄	60.19				
MgCl ₂	47.62	<u>10</u>			<u>476</u>
NaHCO ₃	84.00				
Na ₂ SO ₄	71.03				
NaCl	58.46	<u>357</u>			<u>20,870</u>

Saturation Values

Distilled Water 20°C

CaCO₃

13 Mg/l

CaSO₄ · 2H₂O

2,090 Mg/l

MgCO₃

103 Mg/l

REMARKS Solids; Paraffin 25%, CaCO₃ 61%, Fe 14%

WATER ANALYSIS REPORT

Company Coastal Address _____ Date 10-28-98

Source Conoco Tribal 31-55A Date Sampled 10-22-98 Analysis No. _____
Upper greenriver

	Analysis	mg/l(ppm)	*Meg/l
1. PH	<u>8.8</u>		
2. H ₂ S (Qualitative)	<u>6.0</u>		
3. Specific Gravity	<u>1.024</u>		
4. Dissolved Solids		<u>36,953</u>	
5. Alkalinity (CaCO ₃)	CO ₃	<u>240</u>	÷ 30 <u>8</u> CO ₃
6. Bicarbonate (HCO ₃)	HCO ₃	<u>7,600</u>	÷ 61 <u>124</u> HCO ₃
7. Hydroxyl (OH)	OH	<u>0</u>	÷ 17 <u>0</u> OH
8. Chlorides (Cl)	Cl	<u>15,600</u>	÷ 35.5 <u>439</u> Cl
9. Sulfates (SO ₄)	SO ₄	<u>120</u>	÷ 48 <u>3</u> SO ₄
10. Calcium (Ca)	Ca	<u>80</u>	÷ 20 <u>4</u> Ca
11. Magnesium (Mg)	Mg	<u>0</u>	÷ 12.2 _____ Mg
12. Total Hardness (CaCO ₃)		<u>200</u>	
13. Total Iron (Fe)		<u>.7</u>	
14. Manganese		<u>0</u>	
15. Phosphate Residuals			

Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

	Compound	Eq. Wt.	X	Meg/l	=	Mg/l
4	Ca(HCO ₃) ₂	81.04	<u>4</u>			<u>324</u>
0	CaSO ₄	68.07				
	CaCl ₂	65.50				
	Mg(HCO ₃) ₂	73.17				
	MgSO ₄	60.19				
	MgCl ₂	47.62				
	NaHCO ₃	84.00	<u>128</u>			<u>10,752</u>
	Na ₂ SO ₄	71.03	<u>3</u>			<u>213</u>
	NaCl	58.46	<u>439</u>			<u>25,664</u>

Saturation Values

Distilled Water 20°C

CaCO₃

13 Mg/l

CaSO₄ · 2H₂O

2,090 Mg/l

MgCO₃

103 Mg/l

MARKS _____

EXHIBIT M

NBU #205

NW/SE SECTION 9, T10S-R22E

TD: 7263' (WASATCH) SD: 9/25/92

CSG: 5-1/2" @ 7263'

Test Mesaverde

10/6/92 Release drilling rig w/5-1/2" casing set @ 7263'.

10/92 MIRU Cutters WLS w/mast truck. Ran CBL-CCL-GR log from 7163' to surface w/1000 psi on csg. Good bond, TOC @ 1570'. Perf 9 holes 6436'-7078' w/4" csg gun and acidize. Test non-economic.

10/22/92 **Top down job.** Mix & displace LCM pill, 55 sx Class "G" w/2% CaCl₂, .7% CF-2, 3 pps Hi-Seal 3, 1/4 pps Cello Seal, 150 sx Class "G" w/2% CaCl₂ + .7% CF-2.

Complete Wasatch

12/92 MIRU Cutters WLS. Set 5-1/2" x 17# CIBP @ 6500'. Perf 9 zones, 12 holes w/4" csg guns, 1 JSPF, 4376'-6432' & acidize. EOT @ 4328.21. Flwg 1.0 MMCFD, FTP 550 psi, CP froze, 20/64" chk, 5-10 BWPD.

1/11/93 Frac perfs 4376'-6432' (13 holes) w/101,800 gal 40# CMHPG + 162 tons CO₂ (30% to 15%) + 280,000# 20/40 sand. AIR 30 BPM @ 2900 psi. ISIP 1650 psi, 5 min 1540 psi, 10 min 1500 psi, 15 min 1440 psi. SI 2-hrs. Start flow back @ 4:00 p.m. on 18/64" chk.

Clean out, Perf, Acidize, Install PLE

02/28/96 POH w/tbg. PU & RIH w/hydrostatic bailer. CO from 6302' to CIBP. Spot 2000 gal 15% HCl across perfs - circ 15± BW to pit. Let acid soak 3 hrs, circ out, spent acid & sand from 6429' to CIBP @ 6500'. RIH & broach prod tbg - 201 jts landed @ 6436'. Install plunger, run in w/swab tag fluid @ 2900'. Made 17 runs, swab back 102 bbls, 162 total, FFL 3100'. SITP 0 psi, FSICP 375 psi. SDFN.

Reperf & Acidize w/RBP & Packer

04/23/96 Perf 12 intervals 4376'-6432' 4 SPF 4" csg gun. PU RIH. RBP and pkr, set RBP @ 4600', pkr @ 4300'. Pump 7 bbls 15% KCl + additives 320#. 0.8 BPM. Rls pkr. PU RBP - reset @ 5350' pkr @ 4900', pump 20 bbls 15%. Rls pkr, PU RBP, reset @ 5850', set pkr @ 5350', pump 11 bbls 15%. Rls pkr, PU RBP, reset pkr @ 6350' - pump 7 bbls 8% HCl - Rls pkr, POH & reset pkr @ 4300'. Ru Swab, pull 3 runs, line part on 4th run. FL @ 2700' - Recovered 18 bbls, much acid - Start swab again FL 2700', pull 6 runs from 4150' - rec 30 bbls, total recovered 48 bbls. 66 LTR. Rls pkr and POH pkr and plug. RIH prod string, notch clr, SN 201 jts, broach tbg in hole. Land in donut - SN @ 6400±, EOT @ 6432'

Raise plunger operating depth

07/16/96 RU Delsco WL Unit, CP 825 psi, equilibize well. Run in retrieve plunger stdg vlv. Run in w/clr stop, set @ 5056'. Run in w/2 3/8" perf gun, shoot 4 holes in tubing from 5056'-5058'. Run in & PU clr stop & set @ 5028' & drop bumper spring & plunger and open well to separator. FL 4600'. TP 50 psi, CP 875 psi. Made 1 swab, run from 2700'-5000'. Well flowing. Put well to separator & RD Swab rig. Flowing 95 MMCF, 50 BW, 275 TP, 610 CP, on 30/64" chk.

EXHIBIT M1

NBU 205 - SWDW Conversion

NW SE Section 9 10S 22E

Uintah County, UT

March 2, 1999

ELEVATION: 5213' GL 5228' KB
TOTAL DEPTH: 7263' PBD:7206' (6281- 10/3/95)
CASING: 8-5/8" 24# K-55 ST&C set @ 271'
5-1/2" 17# J-55 set @ 7263'
TUBING: Current - 2-3/8" 4.7# @ 4328'
Proposed -2-7/8" 6.5# N-80 plastic lined tubing @ 1400'
PERFORATIONS: Current - 4376-6432' 12 holes
Proposed - 1522-1620' 120 holes

PROCEDURE:

1. MIRUPU. Control well. NDWH NUBOP. POOH w/2-7/8" tubing.
2. RIH w/CICR on 2-7/8" tubing. Establish injection rate and set retainer @ 4200'. Cement squeeze Wasatch perms 4376-6432' w/275 sx Class G w/0.5% FLAC(1.15 ft3/sk, 15.8ppg 4.98 gal H2O/sk). Spot last 10 sx on top of CICR. Reverse out excess. POOH & LD all but 1400' of tubing.
3. MIRU Wireline Co. Set CIBP @ 2500'. Cap w/2 sx cmt. Perforate the following Upper Green River intervals w/a 3-1/8" casing gun loaded w/3 JSPF, 120 degree phasing.

1522-1532' 10' 30 holes
1540-1550' 10' 30 holes
1560-1570' 10' 30 holes
1610-1620' 10' 30 holes

Tie into GR/CBL dated 10/13/92 for depth control.

4. RIH w/retr pkr on 2-7/8" tubing. Set pkr @ 1400'. Swab well and obtain water sample for analysis. Run injection step rate test. If injectivity is limited and not sufficient, Acidize interval w/2000 gals 15% HCL w/additives and ball sealers. Surge balls off perms.
5. Rerun step rate test. Run static bottom hole pressure if stipulated by the EPA or State of Utah. POOH and LD tbg.

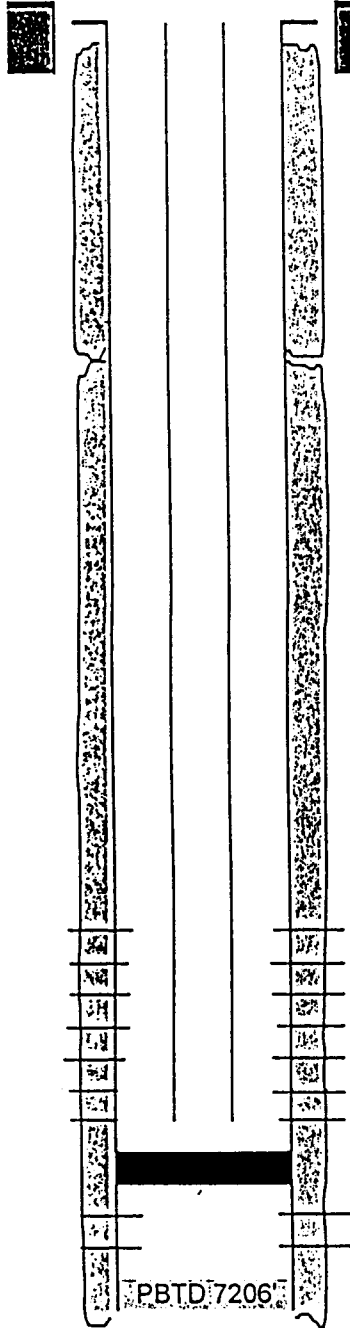
205 Conv Pro

6. RIH w/5-1/2" 17# Arrowset I-X injection packer w/teflon internal coating on 2-7/8" J-55 6.5#/ft tubing w/Duoline 10 lining. Circ well w/packer fluid(0.5% Techni-Hib and 1 gal Alta 133 biocide). Set pkr @ 1400'. Pressure test tbh/csg annulus to 1000 psi. State may want to witness integrity test.
7. NDBOP NUWH. RDMOPU.
8. Install surface facilities and connect gas supply.
 - 3-500 bbl tanks w/stairs
 - Line heater
 - J-60L Triplex w/building

NBU 205 SWDW
Section 9-10S-22E
NBU Field
Uintah Co., Utah

Current Wellbore Schematic

GL: 5213'
KB: 5228'



8-5/8" set @ 271' & cemented to surface.

Top down cement job pumped 10/22/92

Primary cement top at 1570' 10/13/92

Well is Shut-In: Uneconomic

Perfs 4376-6436'
1 spf 12 holes

2-3/8" tubing @ 6436' w/SN @ 6402'

CIBP @ 6500' set 10/92

Perfs 6550-7078'

PBTD 7206'

5-1/2" 17# N-80 @ 7263'

EXHIBIT M3

NBU 205 SWDW
Section 9-10S-22E
NBU Field
Uintah Co., Utah

Proposed Wellbore Schematic

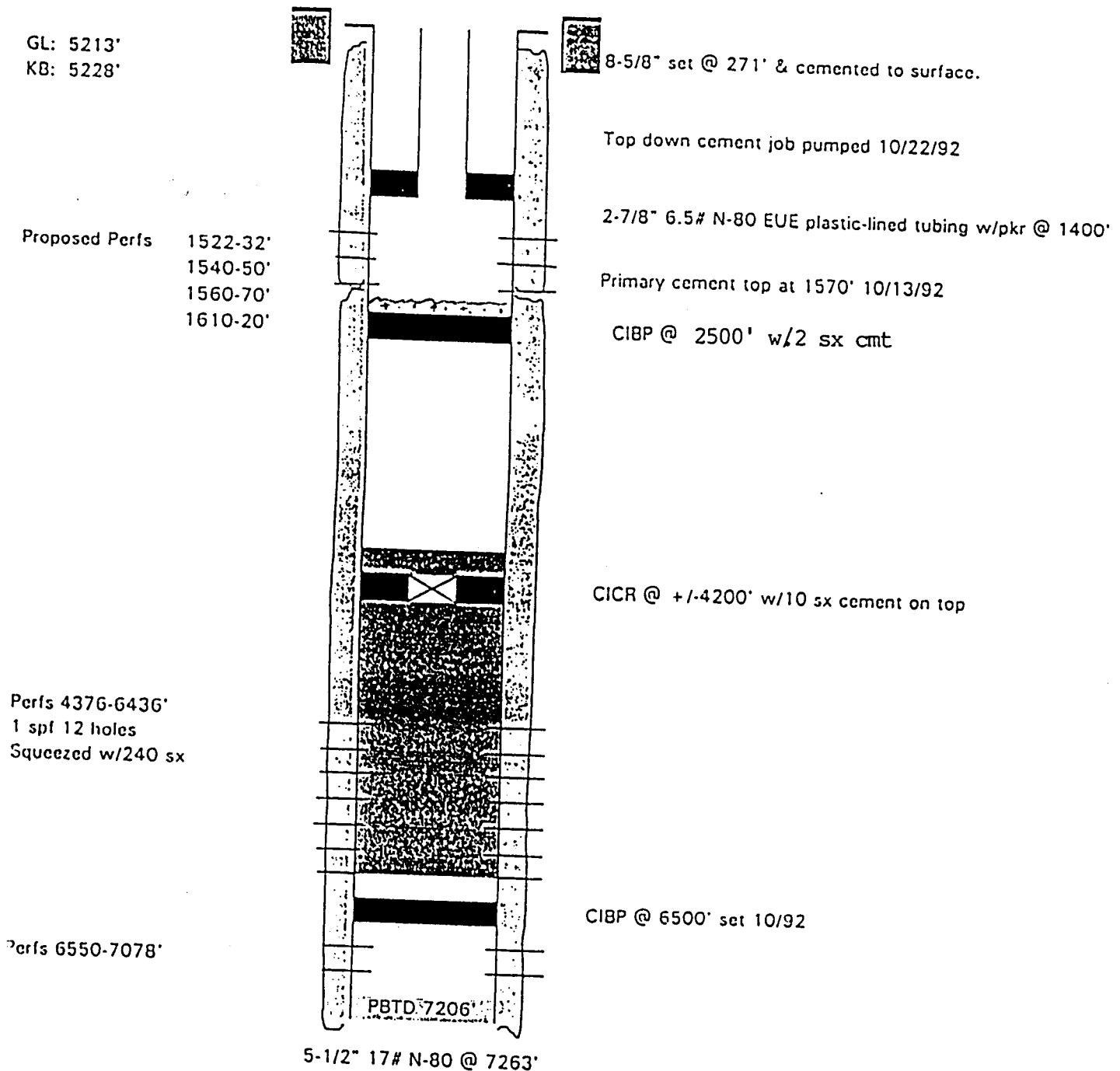
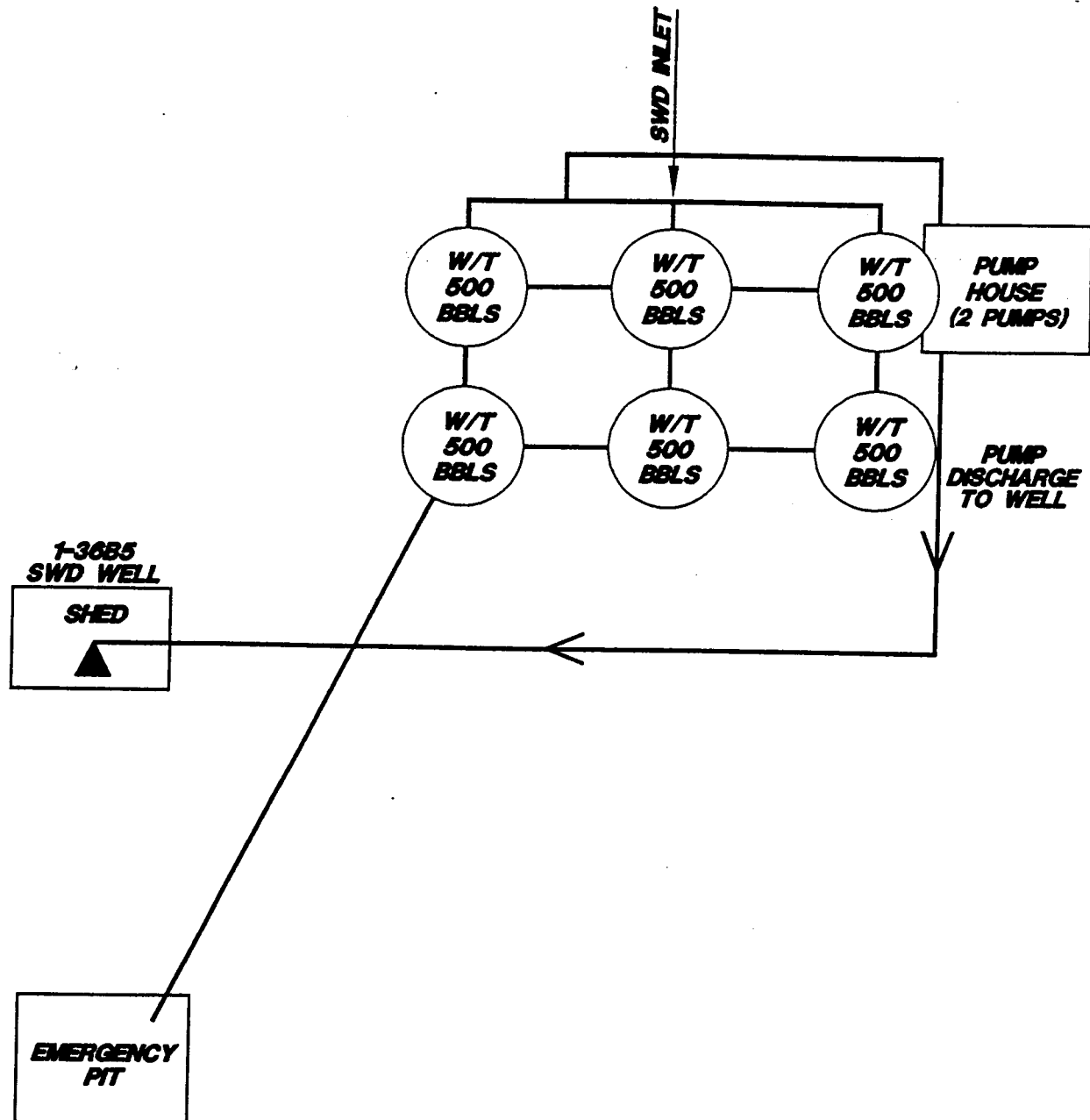


Exhibit M4



Coastal Oil & Gas Corporation
A SUBSIDIARY OF THE COASTAL CORPORATION
The Energy People

NATURAL BUTTES UNIT
UINTAH COUNTY, UTAH

PROPOSED SWD FACILITY

NBU 205
SEC. 9 T10S-R22E

SCALE: NONE

JANUARY, 1999

EXHIBIT Q
NBU 205 - SWDW P&A Plan
NW SE Section 9-10S-22E
Uintah County, UT
January 13, 1999

ELEVATION: 5213' GL; 5228' KB
TOTAL DEPTH: 7263' PBTD: 7206' (6281' - 10/3/95 SLM)
CASING: 8", 24#, K-55 ST&C set @ 271'
5½", 17#, J-55 set @ 7263'
TUBING: Current - 2-3/8" 4.7# @ 4328'
Proposed - 2-7/8", 6.5#, N-80 plastic-lined tubing @ 1400'
PERFORATIONS: Current - 4376'-6432' 12 holes
Proposed - 1522'-1620' 120 holes

P&A Plan:

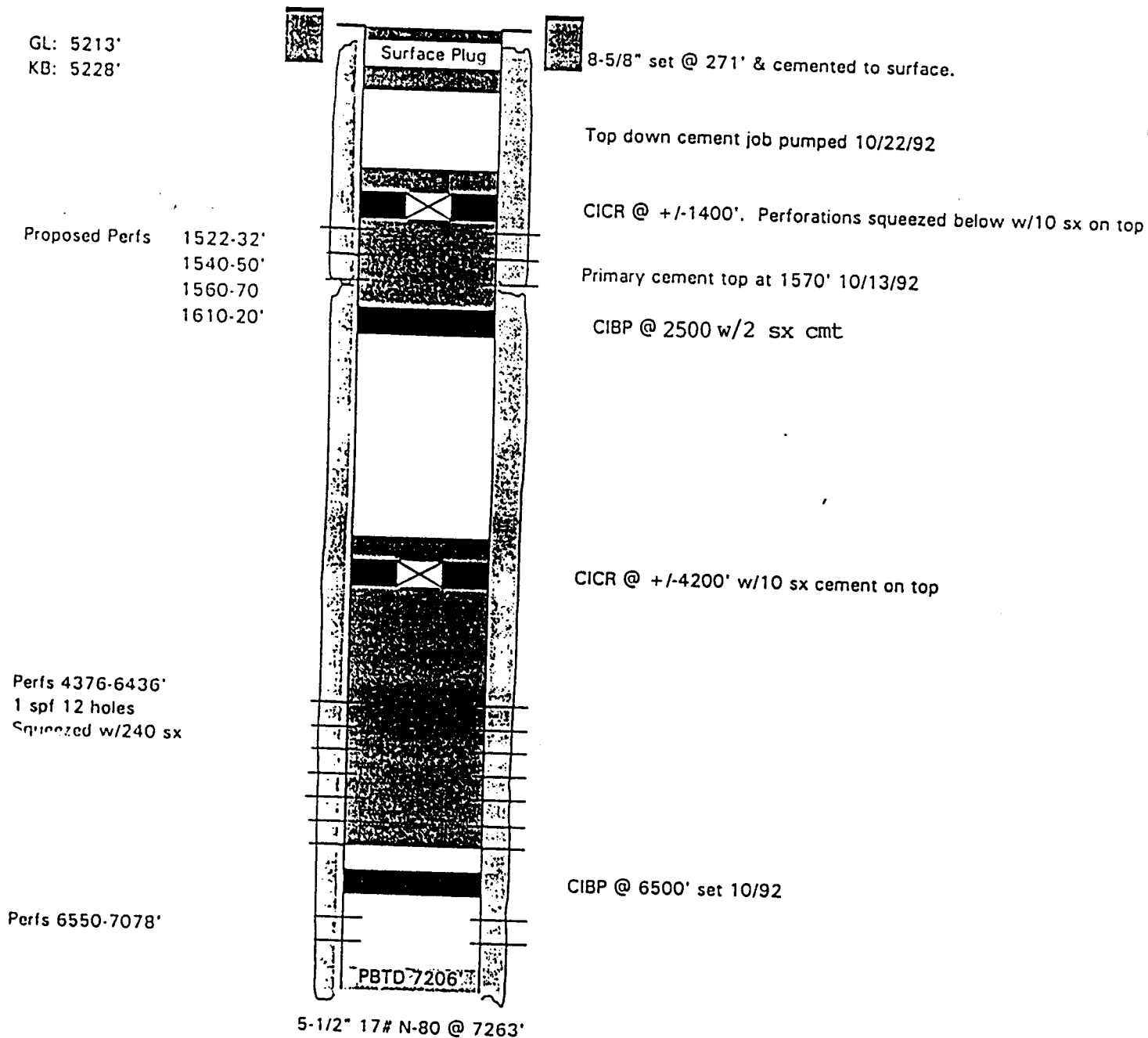
1. Obtain permit from regulatory agencies for P&A proceedings.
2. MIRU pulling unit. Control well. ND WH, NU BOP's. Unscat packer and POOH w/2" lined tbg.
3. RU W/L. Set CICR at 1400'. PU & TIH w/tbg. Sting into retainer and establish injection rate. Cement squeeze perfs 1522-1620' w/75 sxs class G w/0.5% FLAC (1.15 ft3/sk, 15.8 ppg, 4.98 gal H2O/sk). Spot last 10 sxs on top of CICR. Reverse circulate excess f/well.
4. POOH to 250'. Spot surface plug and POOH.
5. ND BOP's. Cut casing at state-required depth and install cap plate. RDMO PU.

TWH

EXHIBIT Q1

NBU 205 SWDW
Section 9-10S-22E
NBU Field
Uintah Co., Utah

Proposed Schematic @ P&A



EPA

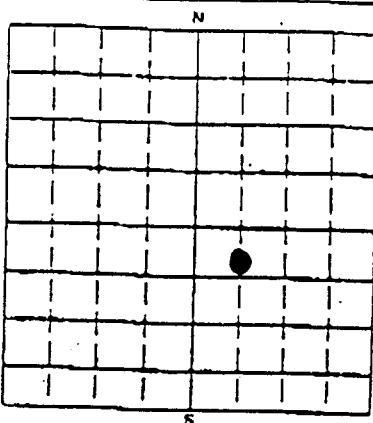
PLUGGING AND ABANDONMENT PLAN

NAME AND ADDRESS OF FACILITY

NBU #205 WDW

NAME AND ADDRESS OF OWNER/OPERATOR

 /Coastal Oil and Gas Corp
600 17th Street, Suite 800S
/Denver, CO 80201

 LOCATE WELL AND OUTLINE UNIT ON
SECTION PLAT — 640 ACRES


STATE

UT

COUNTY

Uintah

PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

NW 1/4 of SE 1/4 of 1/4 of 1/4 of Section 9 Township 10S Range 22E

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

 Surface Location 198 ft. from NW/SE Line of quarter section.
and 180 ft. from E/SE Line of quarter section

TYPE OF AUTHORIZATION

- ☒ Individual Permit
☐ Area Permit
☐ Rul.

Number of Wells 1

WELL ACTIVITY

- ☐ CLASS I
☒ CLASS II
☒ Brine Disposal
☐ Enhanced Recovery
☐ Hydrocarbon Storage
☐ CLASS III

Lease Name Natural Buttes

Well Number #205

CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT/LB/FT	TO BE PUT IN WELL (FT)	TO BE LEFT IN WELL (FT)	MOLE SIZE
5-1/2	17 J-55		7263	

METHOD OF EMPLACEMENT OF CEMENT PLUGS

- ☐ The Balance Method
☒ The Dump Bailer Method
☐ The Two-Plug Method
☒ Other Squeeze w/cmt retrn'r
Retn'r's @ 4200' & 2500'

CEMENTING TO PLUG AND ABANDON DATA:

Loc of Hole or Pipe in which Plug Will Be Placed (Inches)	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Depth to Bottom of Tubing or Drill Pipe (ft.) Plug #2 CTBP	5-1/2	5-1/2	5-1/2	5-1/2			
Secks of Cement To Be Used (each plug)	4200'	2500'	1400'	300'			
Slurry Volume To Be Pumped (cu. ft.)	240	2	85	25			
Calculated Top of Plug (ft.) Plug #2 CTBP w/sx	269	2.24	98	29			
Measured Top of Plug (if tagged ft.)	4100	2480	1300	surf			
Slurry Wt. (Lb./Gal.)	15.8	15.8	15.8	15.8			
Type Cement or Other Material (Class III)	G	G	G	G			

LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (If any)

From	To	From	To
4376 Perfs	6436		
1522	1629		

Estimated Cost to Plug Wells

\$10,000

CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

NAME AND OFFICIAL TITLE (Please type or print)

 Sheila Bremer
Environmental & Safety Analyst

SIGNATURE

Sheila Bremer

DATE SIGNED

3/17/99

APPLICATION FOR INJECTION WELL - UIC FORM 1

OPERATOR Coastal Oil & Gas Corporation
ADDRESS P. O. Box 749
Denver, Colorado 80201-0749

Well name and number: NBU #205

Field or Unit name: Natural Buttes Unit Lease no. U-01196-D

Well location: QQ NW/SE section 9 township 10S range 22E county Uintah

Is this application for expansion of an existing project? . . Yes ☐ No ☒

Will the proposed well be used for: Enhanced Recovery? . . Yes ☐ No ☒
Disposal? Yes ☒ No ☐
Storage? Yes ☐ No ☒

Is this application for a new well to be drilled? Yes ☐ No ☒

If this application is for an existing well,
has a casing test been performed on the well? Yes ☐ No ☒
Date of test: N/A

API number: 43-047-32344

Proposed injection interval: from 1510' to 1655'

Proposed maximum injection: rate 2000 BPD pressure 450 psig

Proposed injection zone contains ☐ oil, ☐ gas, and/or ☐ fresh water within 1/2 mile of the well. There are no water wells within 1/2 mile.

IMPORTANT: Additional information as required by R615-5-2 should accompany this form.

List of Attachments: Sundry Notice; Conversion Procedure; Proposed Well Schematic; Current Well Schematic; Plat Map; Elogs; Water Analysis; Geologic Data

I certify that this report is true and complete to the best of my knowledge.

Name W. L. Donnelly

Title Vice President

Phone No. (303) 572-1112

Signature *W. L. Donnelly*

Date 11/29/97

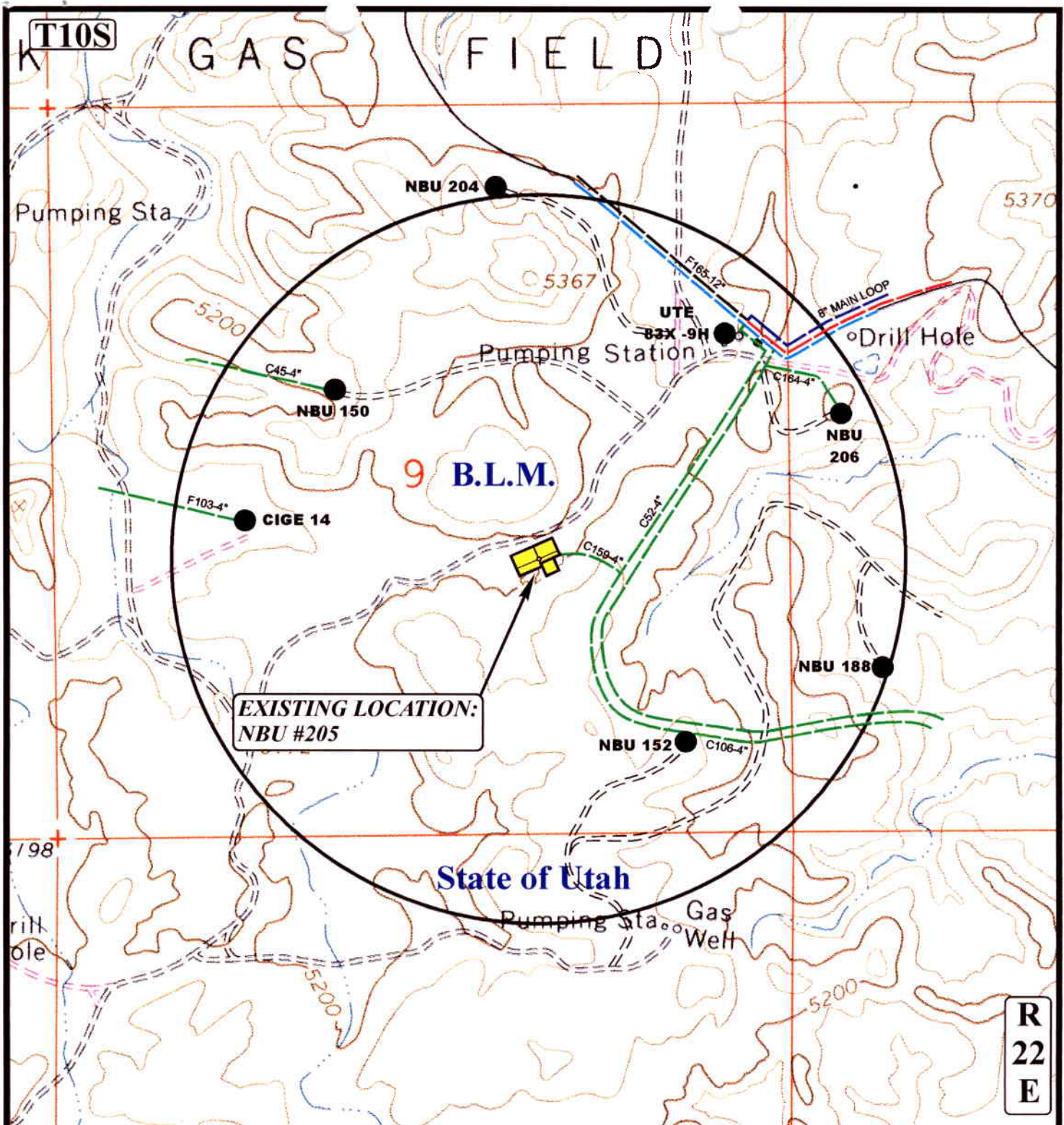
(State use only)

Application approved by _____

Title _____

Approval Date _____

Comments:

**LEGEND:**

- EXISTING ROAD
- EXISTING 12" PIPELINE
- EXISTING 10" PIPELINE
- EXISTING 8" PIPELINE
- EXISTING 6" PIPELINE
- EXISTING 4" PIPELINE
- EXISTING WELL LOCATION

COASTAL OIL & GAS CORP**NBU #205****SECTION 9, T10S, R22E, S.L.B.&M.****1981' FSL 1808' FEL**

Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

**AFFIDAVIT OF
SURFACE INSPECTION**

10 21 98
 MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: D.COX REVISED: 2-25-99

1
TOPO

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---ooOoo---

IN THE MATTER OF THE
APPLICATION OF COASTAL OIL
AND GAS CORPORATION FOR
ADMINISTRATIVE APPROVAL OF
THE NBU 205 WELL, NATURAL
BUTTES UNIT, LOCATED IN
SECTION 9, TOWNSHIP 10 SOUTH,
RANGE 22 EAST, S.L.M., UINTAH
COUNTY, UTAH, AS A CLASS II
INJECTION WELL

: NOTICE OF AGENCY
ACTION

: CAUSE NO. UIC-239

: 43047 32344

---ooOoo---

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED
MATTER.

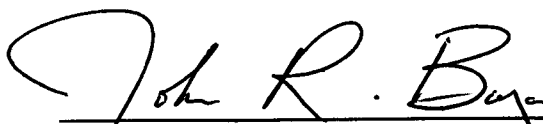
Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Coastal Oil and Gas Corporation for administrative approval of the NBU 205 well, located in Section 9, Township 10 South, Range 22 East, S.L.M., Uintah County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R.649-10, Administrative Procedures.

The Green River Formation will be selectively perforated for water injection. The maximum injection pressure will be determined on the well based on fracture gradient information submitted by Coastal Oil & Gas Corporation.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled before the Board of Oil, Gas and Mining. Protestants and/or intervenors should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 25th day of March, 1999.

STATE OF UTAH
DIVISION OF OIL, GAS & MINING


John R. Baza
Associate Director, Oil & Gas



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

March 25, 1999

SENT VIA E-MAIL AND FAX

Newspaper Agency Corporation
Legal Advertising
P.O. Box 45838
Salt Lake City, Utah 84145

Re: Notice of Agency Action - Cause No. UIC-239

Gentlemen:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please send proof of publication and billing to the Division of Oil, Gas and Mining, 1594 West North Temple, Suite 1210, P.O. Box 145801, Salt Lake City, Utah 84114-5801.

Sincerely,

Larraine Platt
Larraine Platt
Secretary

Enclosure



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

March 25, 1999

Vernal Express
P.O. Box 1000
54 North Vernal Avenue
Vernal, Utah 84078-1000

Re: Notice of Agency Action - Cause No. UIC-239

Gentlemen:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please send proof of publication and billing to the Division of Oil, Gas and Mining, 1594 West North Temple, Suite 1210, P.O. Box 145801, Salt Lake City, Utah 84114-5801.

Sincerely,

Larraine Platt

Larraine Platt
Secretary

Enclosure

**Coastal Oil & Gas Corporation
NBU 205 Well
Cause No. UIC-239**

Publication Notices were sent to the following:

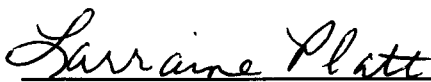
Coastal Oil & Gas Corporation
Sheila Bremer
P.O. Box 749
Denver, Colorado 80201-0749

Newspaper Agency Corporation
Legal Advertising
P.O. Box 45838
Salt Lake City, Utah 84145

Vernal Express
P.O. Box 1000
54 North Vernal Avenue
Vernal, Utah 84078-1000

U.S. Environmental Protection Agency
Region VIII
Attn. Dan Jackson
999 18th Street
Denver, Colorado 80202-2466

School of Institutional Trust Lands Administration
Ed Bonner
675 East 500 South
Salt Lake City, Utah 84102



Lorraine Platt
Secretary
March 25, 1999



PROOF OF PUBLICATION

CUSTOMER NAME AND ADDRESS	ACCOUNT NUMBER	DATE
DIV OF OIL, GAS & MINING 1594 W NORTH TEMP #1210 P.O. BOX 145801 SALT LAKE CITY, UT 84114	D5385340L-07	03/30/99

ACCOUNT NAME	
DIV OF OIL, GAS & MINING	
TELEPHONE	INVOICE NUMBER
801-538-5340	TL34001D851
SCHEDULE	
START 03/30/99 END 03/30/99	
CUST. REF. NO.	
UIC-239	
CAPTION	
BEFORE THE DIVISION OF OIL, GA	
SIZE	
73 LINES 1.00 COLUMN	
TIMES	RATE
1	1.64
MISC. CHARGES	AD CHARGES
.00	119.72
TOTAL COST	
119.72	

AFFIDAVIT OF PUBLICATION

AS NEWSPAPER AGENCY CORPORATION LEGAL BOOKKEEPER, I CERTIFY THAT THE
ADVERTISEMENT OF BEFORE THE DIVISION OF OIL, GA
DIV OF OIL, GAS & MINING WAS PUBLISHED BY THE NEWSPAPER
CORPORATION, AGENT FOR THE SALT LAKE TRIBUNE AND DESERET NEWS, DAILY
PRINTED IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND
IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH.

PUBLISHED ON START 03/30/99 END 03/30/99

SIGNATURE *James Hays*

DATE 03/30/99

BEFORE THE DIVISION OF OIL, GAS
AND MINING, DEPARTMENT OF
NATURAL RESOURCES, STATE OF
UTAH, I, JAMES HAYS, LEGAL
BOOKKEEPER OF THE NEWSPAPER
AGENCY CORPORATION, DO HEREBY
CERTIFY THAT THE FOLLOWING
NOTICE OF AGENCY ACTION
WAS CAUSED BY UIC-239, 1999

IN THE MATTER OF THE APPLI-
CATION OF COASTAL OIL AND GAS
CORPORATION FOR ADMINISTRATIVE
APPROVAL OF THE NBU 205
WELL, NATURAL BUTTES UNIT, LO-
CATED IN SECTION 9, TOWNSHIP
10 SOUTH, RANGE 22 EAST, S.L.M.,
UTAH COUNTY, UTAH, AS A
CLASS II INJECTION WELL.

THE STATE OF UTAH TO ALL PER-
SONS INTERESTED IN THE ABOVE
ENTITLED MATTER

Notice is hereby given that the
Division of Oil, Gas and Mining
(the "Division") is commencing
an informal adjudicative pro-
ceeding to consider the applica-
tion of Coastal Oil and Gas
Corporation for administrative
approval of the NBU 205 well,
located in Section 9, Township
10 South, Range 22 East, S.L.M.,
Utah County, Utah for conver-
sion to a Class II injection well.
The proceeding will be con-
ducted in accordance with
Utah Admin. Code R.649-10, Admini-
strative Procedures.

The Green River Formation will
be selectively perforated for
water injection. The maximum
injection pressure will be de-
termined on the well based on
fracture gradient. Information
submitted by Coastal Oil & Gas
Corporation.

Any person desiring to object to
the application or otherwise in-
tervene in the proceeding, must
file a written protest or notice of
intervention with the Division
within fifteen days following
publication of this notice. If
such a protest or notice of in-
tervention is received, a hear-
ing will be scheduled before
the Board of Oil, Gas and Min-
ing. Protestants and/or interven-
ors should be prepared to
demonstrate at the hearing how
this matter affects their interests.

Dated this 25th day of March,
1999.

STATE OF UTAH
DIVISION OF OIL, GAS & MINING
John R. Baza
Associate Director, Oil & Gas
34001D85

SALT LAKE CITY, UT 84103
My Commission Expires
March 31, 2000
STATE OF UTAH

THIS IS NOT A STATEMENT BUT A "PROOF OF PUBLICATION"
PLEASE PAY FROM BILLING STATEMENT.

2871 REC 6131 NUAD-9016 GFEN9

NOTICE OF AGENCY
ACTION
CAUSE NO. UIC-239
BEFORE THE
DIVISION OF OIL,
GAS AND MINING
DEPARTMENT OF
NATURAL
RESOURCES
STATE OF UTAH
IN THE MATTER OF
THE APPLICATION OF
COASTAL OIL AND
GAS CORPORATION
FOR ADMINISTRATIVE APPROVAL OF
THE NBU 205 WELL,
NATURAL BUTTES
UNIT, LOCATED IN
SECTION 9, TOWNSHIP
10 SOUTH,
RANGE 22 EAST,
S.L.M., UTAH COUNTY,
UTAH, AS A CLASS
II INJECTION WELL.
THE STATE OF UTAH
TO ALL PERSONS INTERESTED IN THE
ABOVE ENTITLED
MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Coastal Oil and Gas Corporation for administrative approval of the NBU 205 well, located in Section 9, Township 10 South, Range 22 East, S.L.M., Uintah County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R. 649-10, Administrative Procedures.

The Green River Formation will be selectively perforated for water injection. The maximum injection pressure will be determined on the well based on fracture gradient information submitted by Coastal Oil & Gas Corporation.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled before the Board of Oil, Gas and Mining. Protestants and/or intervenors should be prepared to demonstrate at the hearing.

PROOF OF PUBLICATION

STATE OF UTAH,

} SS.

County of Uintah

I, JODY A. SMUIN,

being duly sworn, depose and say, that I am the Business Manager of The Vernal Express, a weekly newspaper of general circulation, published each week at Vernal, Utah, that the notice attached hereto was published in said newspaper

for 1 publications,

the first publication having been made on

the 31st day of March, 1999 and the last on

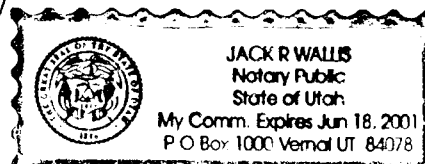
the 31st day of March, 1999, that

said notice was published in the regular and entire issue of every number of the paper during the period and times of publication, and the same was published in the newspaper proper and not in a supplement.

By Jody A. Smuin Manager

Subscribed and sworn to before me, this 31st day of March A.D. 1999.

Jack R. Wallis
Notary Public, Residence, Vernal, Utah



that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Coastal Oil and Gas Corporation for administrative approval of the NBU 205 well, located in Section 9, Township 10 South, Range 22 East, S.L.M., Uintah County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R. 649-10, Administrative Procedures.

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Dated this 25th day of March, 1999.

STATE OF UTAH
DIVISION OF OIL,
GAS & MINING
JOHN R. BAZA,
Associate Director, Oil
& Gas

Published in the Vernal
Express March 31, 1999.

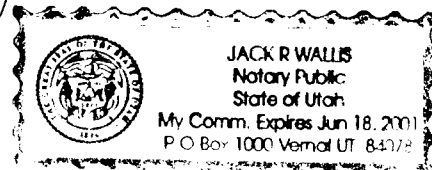
the first publication having been made on
the 31st day of March, 1999 and the last on
the 31st day of March, 1999, that

said notice was published in the regular
and entire issue of every number of the
paper during the period and times of
publication, and the same was published in
the newspaper proper and not in a
supplement.

By Jody Smuin.....
Manager

Subscribed and sworn to before me, this
31st day of March A.D. 1999.

Jack R. Wallis.....
Notary Public, Residence, Vernal, Utah





Coastal
The Energy People

April 5, 1999

Mike Hebertson
State of Utah
Division of Oil Gas & Mining
1594 West North Temple Suite 1210
Salt Lake City, Utah 84114

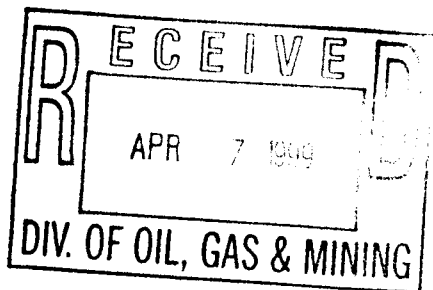
Dear Sir:

This should give you the information you needed. If you need something else, feel free to call me at 435-789-7001.

We plan on doing a top down cement on the NB 152 this week.

Sincerely,

Paul Breshears
Field Production Supt.



Coastal Oil & Gas Corporation

A SUBSIDIARY OF THE COASTAL CORPORATION

1176 S 1500 E • PO BOX 1148 • VERNAL UT 84078 • 435/789-4433 • FAX 435/789-4436

DIVISION OF OIL, GAS AND MINING
UNDERGROUND INJECTION CONTROL PROGRAM

**PERMIT
STATEMENT OF BASIS**

Applicant: Coastal Oil & Gas Corporation **Well:** NBU 205

Location: 1808 FEL 1981 FSL NWSE Sec 9, T10S, R22E **API:** 43-047-32344

Ownership Issues: The proposed well is located on Federal land within the Federally administered Natural Buttes Unit. Lands in the one-half mile radius of the well are administered by the BLM and the School Trust Lands Administration, of the State of Utah. The Federal Government and the State of Utah are the mineral interest owners within the area of review. Coastal Oil and Gas Corporation and various other companies, and individuals hold the leases in the unit. Coastal has provided a map of the surface, mineral and lease holders in the half-mile radius, however the State of Utah Lands were omitted and a second map was made by division personnel. Coastal is the operator of the Natural Buttes Unit. Coastal has submitted a Sundry Notice indicating that all appropriate agencies have been notified.

Well Integrity: This well was originally drilled in February of 1993 and completed as a producing Gas well. 8 5/8 24# surface casing was set at 271' and cemented with 150 sacks of Premium AG cement to surface. A 5 1/2 inch 17# production casing is set at 7263' and is cemented with 1340 sacks of HiFill & 50/50 Pozmix as the tail. Cement was found at 1570' by bond log analysis. A top down cement job was performed to bring cement to the surface, however bond log analysis of this job is poor and it is not clear if the bond has good integrity. Upon completion of construction 2 7/8 6.5# tubing will be set with a packer at 1400 feet, 122 feet above the injection zone. There are six wells within a 1/2 mile radius of this well all six are producing Gas wells, and all of these have had top down cement jobs, and bond logs have been submitted. One well has been plugged and abandoned it is however just outside of the 1/2 mile radius. A well history of the plugging and abandonment has been requested from the operator showing cement volumes. All of the wells have adequate surface and production casing, and cement bond log information has been submitted for all the wells within the 1/2 mile radius.

Ground Water Protection: According to the Data in Technical Publication No.92 the base of the moderately saline waters is at a depth of 4,800 feet. Water will be obtained from the intended injection zone and compatibility analysis and testing will be completed prior to issuing a permit for this well. The intended injection zone is about 3,200 feet above the base of this zone in the Bird's Nest Member of the Green River Formation. Injection will be limited to the interval between 1522 feet and 1620 feet in the Green River

Formation. Information submitted by Coastal indicates that the fracture gradient for the NBU 205 well is .65 psi/ft., for the injection zone. Verification of the anticipated fracture gradient will be obtained during the Step Rate Test. The resulting minimum fracture pressure for the proposed injection interval will be determined from the Step Rate Test. The requested maximum pressure and the anticipated average injection pressures will also be determined from the Step Rate Test. Injection pressure will be maintained that will not initiate any new fractures or propagate existing fractures in the adjacent confining intervals. Any ground water present should be adequately protected.

Oil/Gas & Other Mineral Resources Protection: The Natural Buttes Unit #205 will inject into the Bird's Nest Member of the Green River Formation. Although there is commercial oil production from the Green River Formation, this zone does not produce oil or gas, and the water produced from the zone is notably more saline than the rest of the Green River Formation. No other mineral resources will be affected by injection of produced water into the Bird's Nest Zone.

Bonding: Bonded with the BLM

Actions Taken and Further Approvals Needed: A notice of agency action has been sent to the Salt Lake Tribune and the Uinta Basin Standard. Said Notice was published in the Salt Lake Tribune on March 30, 1999 and is noted as Cause No. UIC-239. A casing/tubing pressure test will be required prior to injection. It is recommended that Administrative approval of this application be granted.

Note: Applicable technical publications concerning water resources in the general vicinity of this project have been reviewed and taken into consideration during the permit review process.

Reviewer(s): K. Michael Hebertson

Date: 29 April 1999

Stipulations:

1. A fracture gradient will be obtained from the Step Rate Test, and submitted to the Division of Oil, Gas & Mining prior to approval for injection.
2. A tracer survey will be run to prove the integrity of the cement bond above and below the zone of injection.
3. Water quality test for water sample taken from this well.
4. Water compatibility analysis of intended injection waters and injection zone water.

March 12, 1998

Coastal Oil & Gas Corporation

Re: NBU #205, Section 9, Township 10 South, Range 22 East, Uintah County, Utah

Gentlemen:

Pursuant to Utah Admin. Code R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval:

1. A fracture gradient will be obtained from the Step Rate Test, and submitted to the Division of Oil, Gas & Mining prior to approval for injection.
2. A tracer survey will be run to prove the integrity of the cement bond above and below the zone of injection.
3. An MIT will be run prior to the issuance of an injection permit.
4. Water quality test for a water sample taken from this well will be done.
5. Water compatibility survey on the intended injection waters will be done.

If you have any questions regarding this approval or the necessary requirements, please contact K. Michael Hebertson at this office.

Sincerely,

John R. Baza
Associate Director, Oil and Gas

cc: Dan Jackson, Environmental Protection Agency
Bureau of Land Management, Price
Emery County Commission



May 11, 1999

Mike Hebertson
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Dear Mr. Hebertson,

Thank you for identifying, for us, that Coastal Oil & Gas Corporation must submit, to you, a copy of the **"Affidavit of Mailing"** and a copy of the February 2, 1999, Natural Buttes Unit # 205 Underground Injection Control Permit Application **"Cover Letter"**.

As you stated, this morning in our telephone conversation, once you receive the **"Affidavit of Mailing"** and a copy of the **"Cover Letter"** you will approve the Natural Buttes Unit # 205 Underground Injection Control Permit Application.

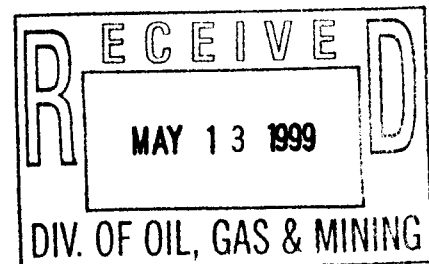
The enclosed documentation substantiates our claim that copies of the Underground Injection Control Permit Application has been sent to, BLM, the landowner of Section 9-T10S-R22E in Uintah County, Utah, and other Federal and State interested parties.

Again thank you for your help on this matter. If you have any questions please call me at 435-781-7021.

Very Truly Yours,

Ronald M. Routh, REM, CEA
Sr. Environmental Coordinator
Coastal Oil and Gas Corporation

Cc. Cheryl Cameron



Coastal Oil & Gas Corporation

A SUBSIDIARY OF THE COASTAL CORPORATION
1176 S 1500 E • PO BOX 1148 • VERNAL UT 84078 • 435/789-4433 • FAX 435/789-4436



February 2, 1999

UIC Application
NBU #205
Section 9-T10S-R22E
Uintah County, Utah

Mr. Dave Hogle
EPA Region VIII
UIC Groundwater Program
999 18th Street, Suite 500
Mail Code: 8P2-W-GW
Denver, Colorado 80202-2466

Mr. Dan Jarvis
State of Utah
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114

Dear Messrs. Hogle & Jarvis:

Enclosed please find the referenced application to convert the NBU #205 to a saltwater disposal well. If you have any questions or need additional information, please call me at (303) 573-4455.

Sincerely,

Sheila Bremer
Environmental & Safety Analyst

Enclosures

cc: Charlie Cameron, BIA
Ferron Secakuku, Ute Tribe
Jerry Kenczka, BLM

Coastal Oil & Gas Corporation

A SUBSIDIARY OF THE COASTAL CORPORATION
600 17TH ST • STE 800 S • P O BOX 749 • DENVER CO 80201-0749 • 303/572-1121


BEFORE THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF THE APPLICATION OF COASTAL OIL & GAS CORPORATION)
FOR APPROVAL TO CONVERT THE NATURAL BUTTES UNIT #205 TO AN)
UNDERGROUND WATER DISPOSAL WELL IN THE UNITAH/BIRD'S NEST ZONE)
OF THE GREEN RIVER FORMATION IN SECTION 9-T10S-R22E UINTAH COUNTY, UTAH)

AFFIDAVIT OF MAILING

Ronald M. Routh, of legal age, and being first duly sworn, upon his oath, deposes and says:

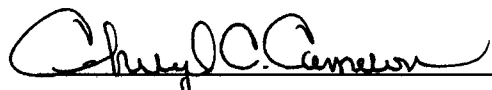
That he is employed by Coastal Oil & Gas Corporation; that Coastal's Application for Underground Water Disposal in the Natural Buttes Unit # 205 has been sent, by mail, on February 2, 1999, to the surface and mineral owner located within one-half mile radius of the subject well or other interested parties at the addresses shown on the attached February 2, 1999, cover letter; and that to the best of his information, knowledge, and belief, the parties named in the attached letter are the only parties to whom notice of this application is required to be given.



Ronald M. Routh, REM, CEA
Sr. Environmental Coordinator
Coastal Oil & Gas Corporation

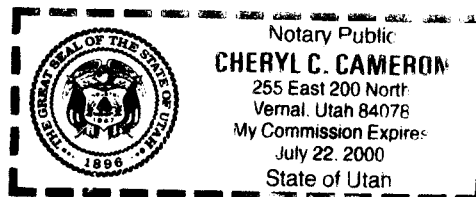
STATE OF UTAH)
) ss.
COUNTY OF UINTAH)

Subscribed and sworn to before me on this 11th day of May 1999.



Notary Public – Cheryl Cameron

My Commission Expires:





FACSIMILE COVER PAGE

THIS TRANSMISSION CONSISTS OF 2 PAGES INCLUDING COVER SHEETTO: Gill Hunt @ FAX # 801-359-3940FROM: Ronny Routh @ FAX # 435-789-4436

If you have any problem receiving the above specified pages, please notify Coastal Oil & Gas Corp office @ 435-789-4433.

Confidentiality Notice:

This message is intended only for the use of the individual or entity designated above, is confidential and may contain information that is legally privileged or exempt from disclosure under applicable laws. You are hereby notified that any dissemination, distribution, copying or use of or reliance upon the information contained in and transmitted with this facsimile transmission by anyone other than the recipient designated by the sender is not authorized and strictly prohibited. If you have received this communication in error, please immediately notify the sender by telephone and return it to the sender by U.S. Mail, or destroy it if so instructed by the sender.

Thank you

781-9021

Hi Gill,

I fax this info to you 12/2/99, however, the fax failed. Please help me to get a MAXIMUM injection pressure.

Thank Ronny Routh

STEP RATE TEST DATAWell: NBU#205 Date: 11-11-99 Operator Coastal Oil & GasSTEP #1 Test Rate (5% of maximum rate) 0.2 (bbl/min)

Time (min) :	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):	<u>0</u>	<u>7</u>	<u>6</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

STEP #2 Test Rate (10% of maximum rate) 0.4 (bbl/min)

Time (min) :	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

STEP #3 Test Rate (20% of maximum rate) 0.8 (bbl/min)

Time (min) :	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

STEP #4 Test Rate (40% of maximum rate) 1.6 (bbl/min)

Time (min) :	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):	<u>0</u>	<u>455</u>	<u>453</u>	<u>462</u>	<u>453</u>	<u>442</u>	<u>445</u>

STEP #5 Test Rate (60% of maximum rate) 2.4 (bbl/min)

Time (min) :	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):	<u>445</u>	<u>705</u>	<u>729</u>	<u>747</u>	<u>759</u>	<u>733</u>	<u>726</u>

STEP #6 Test Rate (80% of maximum rate) 3.2 (bbl/min)

Time (min) :	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):	<u>726</u>	<u>982</u>	<u>1007</u>	<u>1028</u>	<u>987</u>	<u>993</u>	<u>978</u>

STEP #7 Test Rate (100% of maximum rate) 4.0 (bbl/min)

Time (min) :	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):	<u>978</u>	<u>1307</u>	<u>1323</u>	<u>1317</u>	<u>1270</u>	<u>1257</u>	<u>1264</u>

ISIP : 60 (psi)

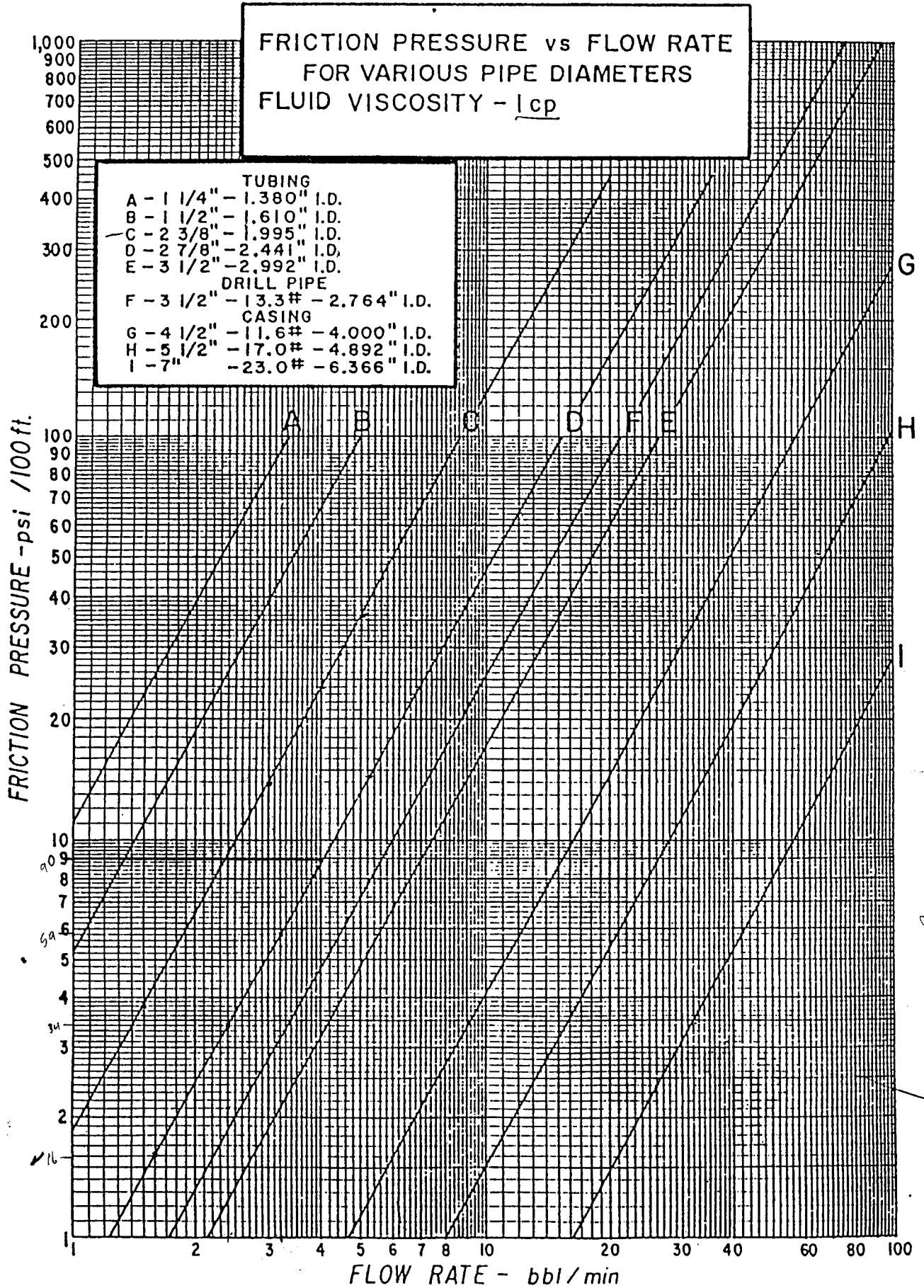
Test Run / Witnessed By:

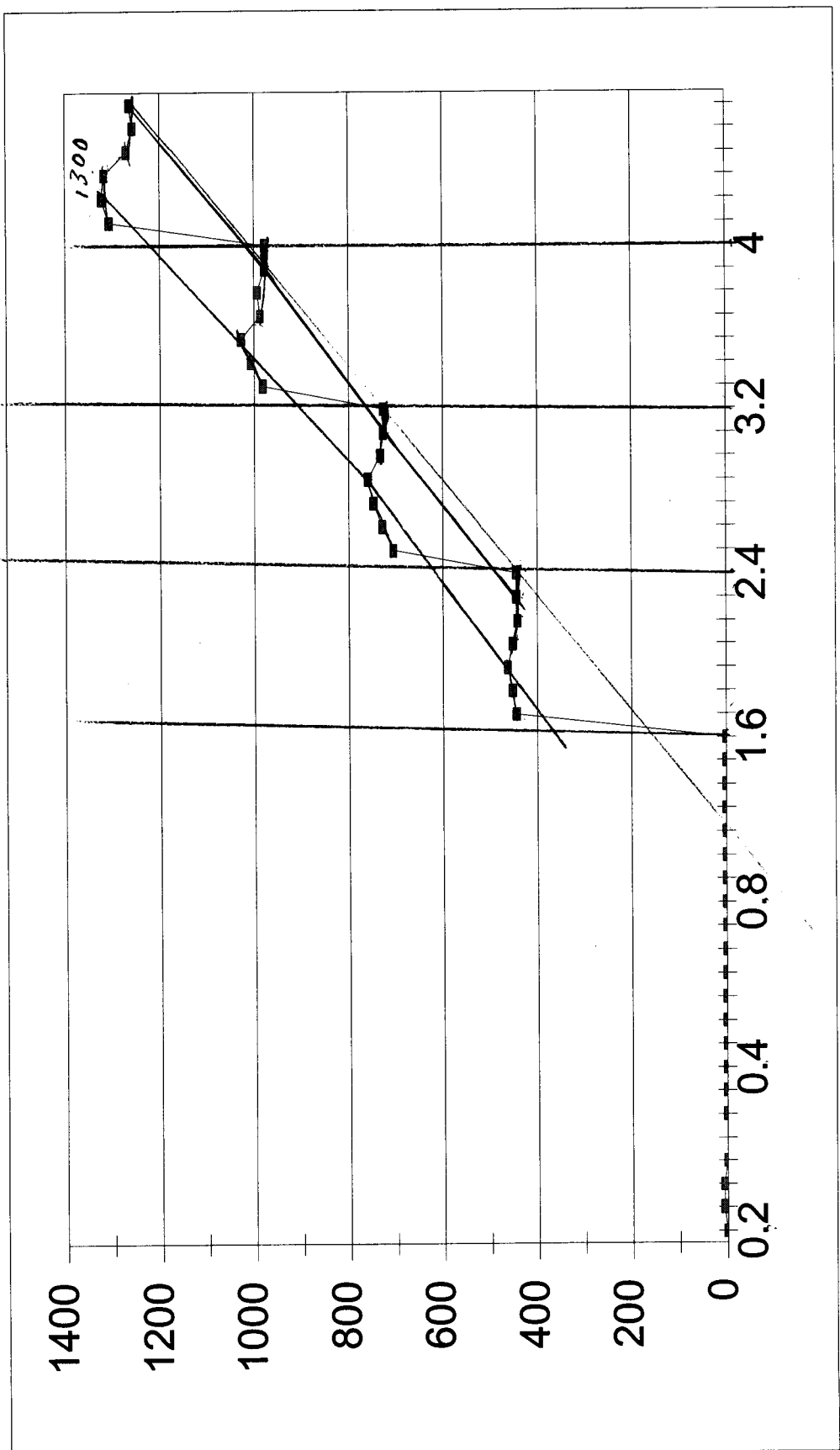
Daniel W. KinsfordState of OK

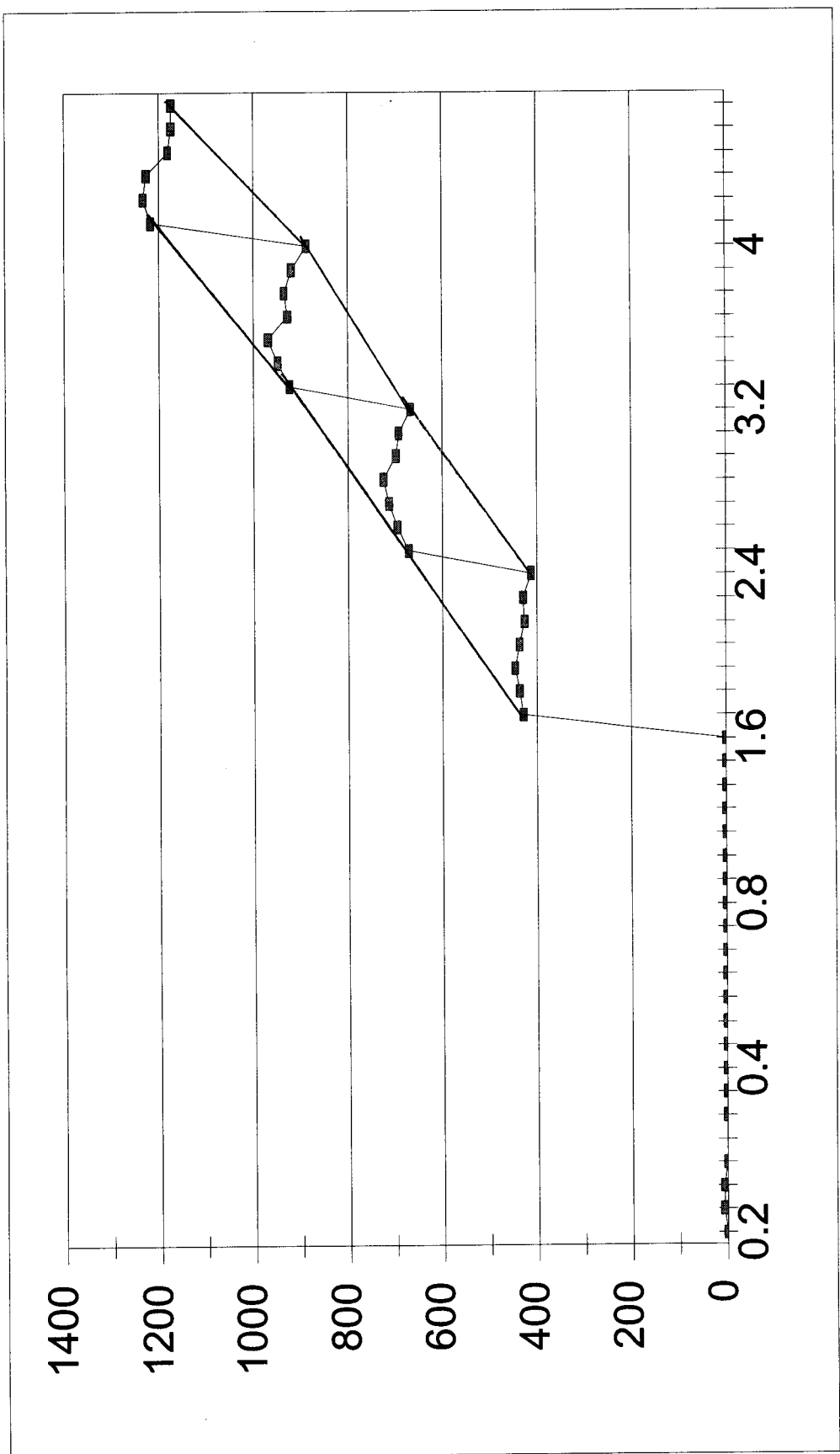
4351

LIMITED ENTRY FRACTURING TECHNIQUE

FIGURE 7







NBU 205 SWD PROJECT

11/18/99

Pg. 1 **Water Analysis From the Connate Water**

Pg.2 **Water Analysis Representing a Composite
of the Bitter Creek Field**

Pg.3 **Aquamix Scaling Predictions of the
Connate & Produced Water**

Pg.4 **Synopsis**

cc: Sam Prutch
Cheryl Cameron
Ronny Routh

UNICHEM

A Division of BJ Services

P.O. Box 217
Roosevelt, Utah 84066

Office (435) 722-5066
Fax (435) 722-5727

WATER ANALYSIS REPORT

Company COASTAL OIL AND GAS Address _____ Date 11-15-99

Source NBU 205 SWD (Connate Water) Date Sampled _____ Analysis No. _____

	Analysis	mg/l(ppm)	*Meg/l
1. PH	9.2		
2. H ₂ S (Qualitative)	38.0		
3. Specific Gravity	1.007		
4. Dissolved Solids		7,779	
5. Alkalinity (CaCO ₃)		CO ₃ 0	÷ 30 0 CO ₃
6. Bicarbonate (HCO ₃)		HCO ₃ 3,000	÷ 61 49 HCO ₃
7. Hydroxyl (OH)		OH 0	÷ 17 0 OH
8. Chlorides (Cl)		Cl 2,100	÷ 35.5 60 Cl
9. Sulfates (SO ₄)		SO ₄ 130	÷ 48 3 SO ₄
10. Calcium (Ca)		Ca 10	÷ 20 1 Ca
11. Magnesium (Mg)		MG 9	÷ 12.2 1 Mg
12. Total Hardness (CaCO ₃)		60	
13. Total Iron (Fe)		1.4	
14. Manganese		0	
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

	Compound	Equiv. Wt.	X	Meg/l	=	Mg/l
1	Ca(HCO ₃) ₂	81.04	1	81		
1	CaSO ₄	68.07				
110	CaCl ₂	55.50				
	Mg(HCO ₃) ₂	73.17	1	73		
	MgSO ₄	60.19				
	MgCl ₂	47.62				
	NaHCO ₃	84.00	47	3,948		
	Na ₂ SO ₄	71.03	3	213		
	NaCl	58.46	60	3,508		

Saturation Values

CaCO₃

CaSO₄ · 2H₂O

MgCO₃

Distilled Water 20°C

13 Mg/l

2,090 Mg/l

103 Mg/l

NH₄ = 24 CO₂ = 0

REMARKS _____

UNICHEM

A Division of BJ Services

P.O. Box 217
Roosevelt, Utah 84066

Office (435) 722-5066
Fax (435) 722-5727

WATER ANALYSIS REPORT

Company COASTAL OIL AND GAS Address _____ Date 11-18-99
Source BITTER CREEK FIELD COMPOSITE Date Sampled _____ Analysis No. _____

	Analysis	mg/l(ppm)	*Meg/l
1. PH	8.2		
2. H ₂ S (Qualitative)	22.0		
3. Specific Gravity	1.0		
4. Dissolved Solids		23,670	
5. Alkalinity (CaCO ₃)		0	0
6. Bicarbonate (HCO ₃)		3,050	50
7. Hydroxyl (OH)		0	0
8. Chlorides (Cl)		10,600	299
9. Sulfates (SO ₄)		1,380	29
10. Calcium (Ca)		360	18
11. Magnesium (Mg)		0	0
12. Total Hardness (CaCO ₃)		900	
13. Total Iron (Fe)		16.0	
14. Manganese			
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION

Compound	Equiv. Wt.	X	Meg/l	=	Mg/l
Ca(HCO ₃) ₂	81.04	18		1,459	
CaSO ₄	68.07				
CaCl ₂	55.50				
Mg(HCO ₃) ₂	73.17				
MgSO ₄	60.19				
MgCl ₂	47.62				
NaHCO ₃	84.00	32		2,688	
Na ₂ SO ₄	71.03	29		2,060	
NaCl	58.46	299		17,480	

Saturation Values

CaCO₃

Distilled Water 20°C

13 Mg/l

CaSO₄ · 2H₂O

2,090 Mg/l

MgCO₃

103 Mg/l

NH₄ = 26 Resistivity = 0.39 ohms/meter @ 74 degrees F

REMARKS _____

AQUAMIX SCALING PREDICTIONS

COMPANY: COASTAL OIL& GAS
LOCATION:
SYSTEM:

11-18-99

WATER DESCRIPTION:	BITTER CREEK FIEL	NBU 205 SWD CONNA
P-ALK AS PPM CaCO3	0	0
M-ALK AS PPM CaCO3	5002	5010
SULFATE AS PPM SO4	1380	130
CHLORIDE AS PPM Cl	10600	2100
HARDNESS AS PPM CaCO3	0	0
CALCIUM AS PPM CaCO3	900	25
MAGNESIUM AS PPM CaCO3	0	37
SODIUM AS PPM Na	8280	2530
BARIUM AS PPM Ba	0	0
STRONTIUM AS PPM Sr	0	0
CONDUCTIVITY	0	0
TOTAL DISSOLVED SOLIDS	23670	7779
TEMP (DEG-F)	100	100
SYSTEM pH	8.3	9.2

WATER COMPATIBILITY CALCULATIONS
BITTER CREEK FIEL AND NBU 205 SWD CONNA
CONDITIONS: TEMP.=100AND pH=8.8
WATER ONE IS BITTER CREEK FIEL

DEG-F <i>% of water</i>	STIFF DAVIS CaCO3 INDEX	lbs/1000 BBL EXCESS CaCO3	mg/l BaSO4 IN EXCESS OF SATURATION	mg/l SrO4 IN EXCESS OF SATURATION	mg/l Gypsum IN EXCESS OF SATURATION
100	2.67	314	0	0	0
90	2.66	283	0	0	0
80	2.65	253	0	0	0
70	2.64	222	0	0	0
60	2.61	191	0	0	0
50	2.57	161	0	0	0
40	2.52	130	0	0	0
30	2.46	100	0	0	0
20	2.38	69	0	0	0
10	2.22	39	0	0	0
0	1.65	8	0	0	0

Synopsis:

The connate water from the NBU 205 well appears to be favorable as an injection well. *Aquamix* predictions illustrate that as the water from the Bitter Creek field are introduced to the formation at the 205, scaling tendencies drop significantly.

The *Aquamix* sheet is 100% Bitter Creek water at the top and is replaced in 10% by volume increments of source water as it descends. The bottom value then becomes 0% Bitter Creek and 100% connate.

The Bitter Creed water sample is a composite of five wells. The wells were selected because of the significant amount of water they will contribute to the salt water disposal system. The waters were taken from the NBU 210, NBU 213, NBU 244, NBU 245 and the NBU 249.

STEP RATE TEST DATA

Well: NBU #205 Date: 11-11-99 Operator Coastal Oil & Gas

STEP #1 Test Rate (5% of maximum rate) 0.2 (bbl/min)

Time (min)	: 0	5	10	15	20	25	30
Pressure (psi):	0	7	6	0	0	0	0

STEP #2 Test Rate (10% of maximum rate) 0.4 (bbl/min)

Time (min)	: 0	5	10	15	20	25	30
Pressure (psi):	0	0	0	0	0	0	0

STEP #3 Test Rate (20% of maximum rate) 0.8 (bbl/min)

Time (min)	: 0	5	10	15	20	25	30
Pressure (psi):	0	0	0	0	0	0	0

STEP #4 Test Rate (40% of maximum rate) 1.6 (bbl/min)

Time (min)	: 0	5	10	15	20	25	30
Pressure (psi):	0	455	453	462	453	442	445

STEP #5 Test Rate (60% of maximum rate) 2.4 (bbl/min)

Time (min)	: 0	5	10	15	20	25	30
Pressure (psi):	445	705	729	747	759	733	726

STEP #6 Test Rate (80% of maximum rate) 3.2 (bbl/min)

Time (min)	: 0	5	10	15	20	25	30
Pressure (psi):	726	982	1007	1028	987	993	978

STEP #7 Test Rate (100% of maximum rate) 4.0 (bbl/min)

Time (min)	: 0	5	10	15	20	25	30
Pressure (psi):	978	1307	1323	1317	1270	1257	1264

ISIP: 60 (psi)

Test Run / Witnessed By:

Daniel W. Kinsford

State of Wyo

INJECTION WELL - PRESSURE TEST

Well Name: <u>NBU 205</u>	API Number: <u>43-047-32344</u>
Qtr/Qtr: <u>NW/SE</u> Section: <u>9</u>	Township: <u>10 S</u> Range: <u>22 E</u>
Company Name: <u>C.O.G.C.</u>	
Lease: State <u>UT</u> Fee <u>100</u>	Federal <u>X</u> Indian <u> </u>
Inspector: <u>David W. Anderson</u>	Date: <u>12/30/99</u>

Initial Conditions:

Tubing - Rate: 0 Pressure: 0 psiCasing/Tubing Annulus - Pressure: psi

Conditions During Test:

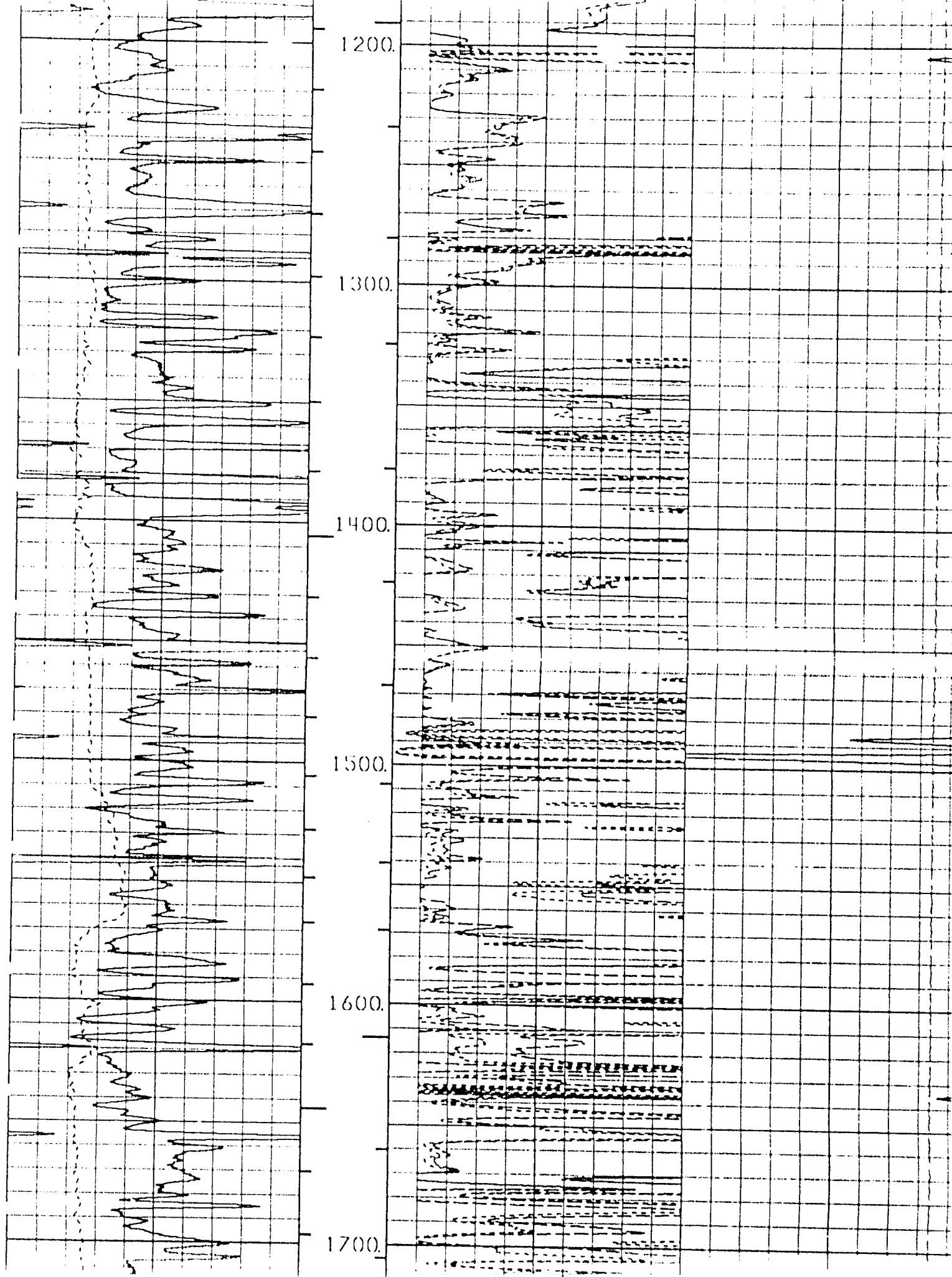
Time (Minutes)	Annulus Pressure	Tubing Pressure
0	<u>1200</u>	<u>0</u>
5	<u>1200</u>	<u>0</u>
10	<u>1200</u>	<u>0</u>
15	<u>1200</u>	<u>0</u>
20	<u>1200</u>	<u>0</u>
25	<u>1200</u>	<u>0</u>
30	<u>1200</u>	<u>0</u>

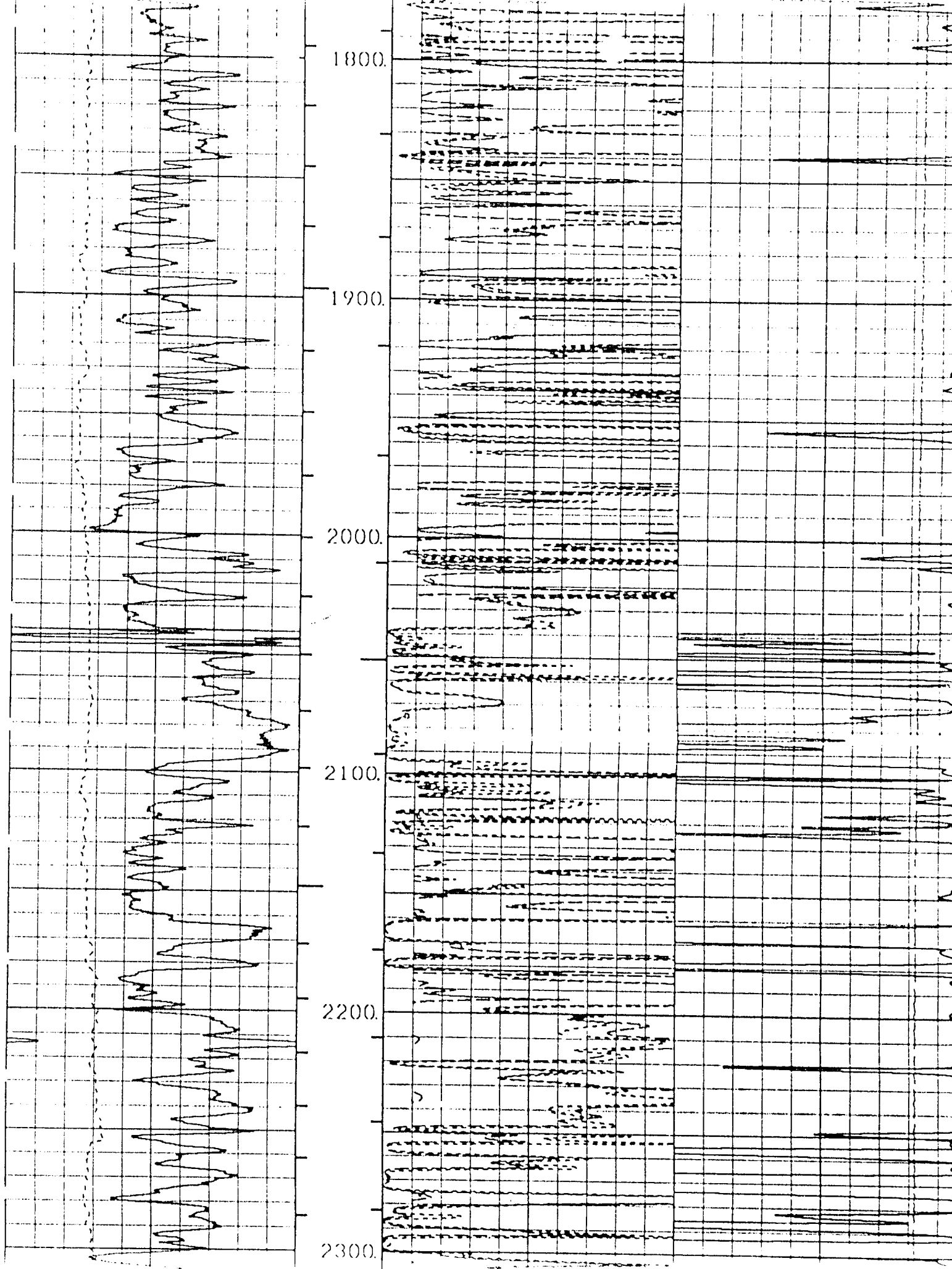
Results: Pass Fail

Conditions After Test:

Tubing Pressure: 0 psiCasing/Tubing Annulus Pressure: 0 psiCOMMENTS: converting well from PGW to WDW.

Helene
Operator Representative







UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

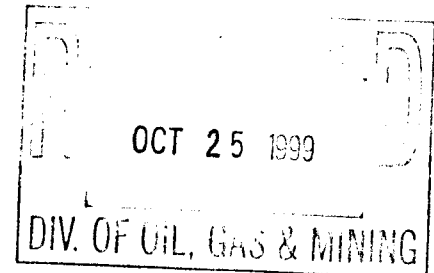
REGION 8
999 18TH STREET - SUITE 500
DENVER, CO 80202-2466
<http://www.epa.gov/region08>

OCT 15 1999

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mrs. Cheryl Cameron
Coastal Oil and Gas Corporation
P. O. Box 1148
Vernal, UT 84078



RE: UNDERGROUND INJECTION CONTROL (UIC)
Final Permit for the
Natural Buttes Unit (NBU) #205 SWDW
EPA Permit No. UT2864-04501
Uintah County, Utah

Dear Mrs. Cameron:

Enclosed is a **Final** Underground Injection Control (UIC) Permit for the proposed salt water disposal well (SWDW), the Natural Buttes (NBU) #205, Natural Buttes/Ouray Fields, Uintah County, Utah. A Statement of Basis is also enclosed which discusses the development of the permit.

The public comment period ended on August 26, 1999. There were no comments from either the general public nor the land owners who may be affected by the proposed action. We also did not receive any comments from you concerning our actions.

Following conversion, but prior to injection, Coastal Oil and Gas Corporation (Coastal) **must meet the requirements outlined in the permit under Part II, Section C. 1., Prior to Commencing Injection.** In summary, these requirements for the disposal well are:

- The permittee has determined the injection zone fluid pore pressure; and
- submitted an analysis of the water from the injection zones following perforations; and
- a successfully passed Part I mechanical integrity pressure test (MIT) has been performed and witnessed according to the current UIC Guidance enclosed; and



- **results of the radioactive tracer survey (RATS)** proves that the well has passed Part II MI (External Mechanical Integrity) or necessary corrective action completed; and
- for the purpose of identifying the current formation fracture pressure, an appropriate and documented **step-rate injectivity test (SRT)** will be performed in the Bird Nest's injection zones according to the SRT Guidance enclosed; and
- submitted a **Well Rework Record (EPA Form 7520-12)** with new completed well diagram following conversion.
- **written authorization to inject** will be given subsequent to review and approval of the above.

It is Coastal's responsibility to be familiar with, and to comply with, all conditions contained in this permit.

If you have any questions on this action please contact Chuck Williams at 303.312.6625. Also direct all correspondence and/or reports to **ATTENTION: CHUCK WILLIAMS AT MAIL CODE 8P-W-GW.** Thank you for your continued cooperation.

Sincerely,



Kerrigan G. Clough
Assistant Regional Administrator
Office of Partnerships and
Regulatory Assistance

Enclosures: Final Permit
 Statement of Basis
 Guidance - MIT (Part I and Part II)
 Guidance - Step-rate test (SRT)
 Guidance - Cement Bond Logging (CBL)
 Guidance - Radioactive Tracer Survey (RATS)

cc: Mr. Roland McCook, Chairman
 Uintah & Ouray Business Committee

Ms. Elaine Willie
Environmental Coordinator
Ute Indian Tribe

Mr. Norman Cambridge
Bureau of Indian Affairs

Mr. Jerry Kenczka
BLM - Vernal, Utah

Mr. Gilbert Hunt
State of Utah Natural Resources
Division of Oil, Gas, and Mining



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 500
DENVER, CO 80202-2466
<http://www.epa.gov/region08>

UNDERGROUND INJECTION CONTROL PROGRAM

FINAL PERMIT

Class IID Salt Water Disposal Well

Permit No. UT2864-04501

Well Name: Natural Buttes Unit (NBU) #205 SWDW

Field Names: Natural Buttes and Ouray

County & State: Uintah, Utah

issued to:

Coastal Oil & Gas Corporation
600 17th Street, Suite 800 South
P. O. Box 749
Denver, CO 80201-0749

Date Prepared: October, 1999



Printed on Recycled Paper

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PART I. AUTHORIZATION TO CONVERT AND OPERATE

Pursuant to the Underground Injection Control Regulations of the U. S. Environmental Protection Agency codified at Title 40 of the Code of Federal Regulations, Parts 124, 144, 146, and 147,

Coastal Oil & Gas Corporation
600 17th Street, Suite 800-S
P. O. Box 749
Denver, CO 80201-0749

is hereby authorized to convert a temporarily abandoned well to a Class IID salt water disposal well (SWDW), commonly known as:

Natural Buttes Unit (NBU) #205 SWDW
NW/4, SE/4 Section 9, Township 10 South, Range 22 East
Uintah County, Utah.

Injection shall be for the purpose of disposing of produced water from the Wasatch, and Mesaverde Formations within the Natural Buttes and Ouray Fields in accordance with conditions set forth herein.

Injection activities shall not commence until the operator has fulfilled all applicable conditions of this permit and has received written authorization from the Director. "Prior to Commencing Injection" requirements are set forth in Part II, Section C. 1., of this permit.

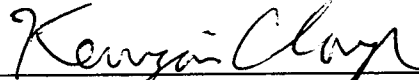
All conditions set forth herein refer to Title 40 Parts 124, 144, 146, and 147 of the Code of Federal Regulations and are regulations that are in effect on the date that this permit becomes effective.

This permit consists of a total of 34 pages and includes all items listed in the Table of Contents. Further, it is based upon representations made by the permittee and on other information contained in the administrative record.

This permit and the authorization to inject are issued for the operating life of the well, unless terminated (Part III, Section B), or except upon automatic expiration due to prolonged postponement of conversion/construction (Part II, Section A. 6.). The permit will be reviewed by EPA at least every five (5) years to determine whether action under 40 CFR § 144.36 (a) is warranted. The permit will expire upon delegation of primary enforcement responsibility for the UIC Program to the State of Utah, Division of Oil, Gas, and Mining, or the Uintah-Ouray Indian Tribal Government, unless either the State or the Indian Tribal Government has adequate authority, and choose, to adopt and enforce this permit as a State permit or Tribal Government permit.

Issued this _____ day of OCT 15 1999, 1999.

This permit shall become effective OCT 15 1999.



* Kerrigan G. Clough
Assistant Regional Administrator
Office of Partnerships and
Regulatory Assistance

* NOTE: The person holding this title is referred to as the "Director" throughout this permit.

PART II. SPECIFIC PERMIT CONDITIONS

A. WELL CONVERSION REQUIREMENTS

1. Casing and Cementing: The proposed well conversion details submitted with the permit application are hereby incorporated into this Permit as **Appendix A** and shall be binding on the permittee. Conversion work shall include, but not be limited to: cement squeeze existing Wasatch perforations (4736' to 6436') with 275 sacks cement, set cement retainer at approximately 4200' using 10 sacks cement, set cast iron bridge plug at approximately 1900' using at least 2 sacks cement, perforate casing between 1520' to 1620' into the injection zone, and obtain a representative sample of the injection zone fluid and test for salinity. The permittee also shall successfully demonstrate Mechanical Integrity Part II - no significant movement of fluid through vertical channels adjacent to the wellbore. Cement bond logs submitted with the application do not confirm an EPA-approved adequate cement bond presently exists above the proposed injection interval. Therefore, the permittee shall demonstrate Mechanical Integrity Part II. If a radioactive tracer survey is used for this test, this permit authorizes limited injection for the purposes of the test and only that volume of fluid necessary to perform the test. The permittee shall submit a written plan for review and approval prior to conducting the test. If the test submitted does not demonstrate Mechanical Integrity Part II, the permittee shall cement squeeze and repair all vertical channels and obtain and submit a new cement bond log, or plug and abandon the well. If the new cement bond log does not confirm an adequate cement bond exists above the proposed injection interval, the permittee may re-demonstrate Mechanical Integrity Part II or perform further repair(s) and tests. Should the well ultimately fail to successfully demonstrate Mechanical Integrity Part II - no significant movement of fluid through vertical channels adjacent to the wellbore, the well shall be plugged and abandoned in accordance with the approved plugging and abandonment plan.
2. Tubing and Packer Specifications: A tubing of two and seven-eighths (2-7/8) inches diameter shall be utilized with a packer placed at a depth of approximately 1475 feet kelly bushing (KB). The permittee is required to set the packer at a distance of no more than 50 feet

above the top perforation. Injection between the outer-most casing protecting underground sources of drinking water (USDWs) and the well bore is prohibited.

3. **Monitoring Devices.** The operator shall install and maintain in good operating condition:

- (a) a tap on the suction line, for the purpose of obtaining representative samples of the injection fluids;
- (b) two (2), one-half (a) inch Female Iron Pipe (FIP) fittings or equivalent quick disconnect fittings, with cut-off valves located: 1) at the wellhead on the tubing, to allow injection pressure monitoring and 2) on the tubing/casing annulus, to allow for monitoring of the annulus fluid pressure. Attached gauges shall be designed to operate at a certified accuracy of at least ninety-five (95) percent, throughout the range of anticipated injection pressures; and
- (c) a flow meter with cumulative volume recorder that is certified for at least ninety-five (95) percent accuracy, throughout the range of injection rates allowed by the permit.

4. **Proposed Changes and Workovers.** The permittee shall give advance notice to the Director, as soon as possible, of any planned physical alterations or additions to the permitted well. Major alterations or workovers of the permitted well shall meet all conditions as set forth in this permit. A major alteration/workover shall be considered any work performed which affects casing, packer(s), or tubing.

Demonstration of Part I (Internal) Mechanical Integrity shall be performed within thirty (30) days of completion of workovers/alterations and prior to recommencing injection activities, in accordance with Part II, Section C. 2.

The permittee shall provide all records of well workovers, logging, or other test data to EPA within sixty (60) days of completion of the activity. Appendix B of this permit contains samples of the appropriate reporting forms.

5. **Formation Testing.** A representative sample of **injection zone water** shall be taken at the time of well conversion. The sample analysis shall be submitted to

EPA prior to operation. The permittee shall determine the **injection zone fluid pore pressure** (static bottom-hole pressure). The permittee shall perform a **step-rate injectivity test** (SRT) of the Bird's Nest injection zone at the time of well conversion.

6. **Postponement of Conversion.** If the well is not converted to injection status within one (1) year from the effective date of this permit, the permit will automatically expire, unless the permittee requests an extension. The request shall be made to the Director in writing, in lieu of the annual reporting requirements of Part II, Section D. 4., and shall state the reasons for the delay in conversion and confirm the protection of all USDWs. An extension under this section may not exceed one (1) year.

Financial responsibility shall be maintained during any period of inactivity in accordance with Part II, Section F. Once a permit expires under this part, the complete permitting process, including opportunity for public comment, must be repeated before authorization to inject will be issued.

B. CORRECTIVE ACTION

The subject well, NBU #205, is the only well within the AOR. Therefore, the permittee is not required to perform corrective actions in the Area of Review prior to the issuance of this permit.

C. WELL OPERATION

1. **Prior to Commencing injection:** Injection operations for the NBU #205 SWDW shall not commence until the permittee has complied with all applicable conditions of the permit and has received written authorization from the Director regarding completion of the following specific conditions:
 - (a) determined the **injection zone fluid pore pressure**; and
 - (b) submitted an **analysis of the water from the injection zones** following perforation; and
 - (c) demonstrated **Part I (Internal) Mechanical Integrity**, using a pressure test that has been

performed and witnessed according to current UIC Guidance for conducting a pressure test to determine if a well has leaks in the tubing, casing or packer; and

- (d) submitted results of a radioactive tracer survey (RATS) or other approved test that **demonstrates Part II (External) Mechanical Integrity**, or submitted documentation that all necessary corrective action has been completed and a cement bond log or other test demonstrates Part II Mechanical Integrity; and
- (e) submitted appropriately documented **results of the step-rate test (SRT)** performed during conversion in the Bird Nest's injection zone, run according to current UIC Guidance; and
- (f) submitted a **Well Rework Record (EPA Form 7520-12)** with a schematic diagram of the actual new well construction following conversion.

Written authorization to inject may be given subsequent to review and approval of the above conditions.

2. **Mechanical Integrity (MI) Demonstrations.**

- (a) Methods for Demonstrating Mechanical Integrity (MI): Demonstration of mechanical integrity shall include, for the NBU #205: Part I (Internal) Mechanical Integrity, to demonstrate there are no significant leaks in the casing/tubing/packer system; and Part II (External) Mechanical Integrity, to demonstrate that there is no significant movement of injected fluids out of the authorized injection interval through vertical channels adjacent to the wellbore. Part I (Internal) Mechanical Integrity shall be demonstrated by conducting a pressure test according to current UIC Guidance. Part II (External) Mechanical Integrity shall be demonstrated by one or more of the following:
 - (1) Cement Bond log (CBL) showing at least 80% bond through the appropriate interval, or
 - (2) Radioactive tracer survey (RATS) according to a EPA-approved procedure, or

- (3) Temperature survey conducted according to a EPA-approved procedure.

Please contact the EPA for the current MIT Guidance.

- (b) Schedule for Demonstration of Mechanical Integrity: A demonstration of mechanical integrity shall be made at regular intervals no less frequently than **every five (5) years** from the effective date of this permit, in accordance with 40 CFR 146.8 and paragraph (a) above, unless otherwise modified. It shall be the permittee's responsibility to arrange for and conduct the routine five-year Part I and Part II mechanical integrity tests. The permittee shall notify the Director of their intent to demonstrate mechanical integrity at least thirty (30) days prior to such demonstration. Results of the test shall be submitted to the Director as soon as possible but no later than sixty (60) days after the test is complete.
- (c) The Director may require a demonstration of mechanical integrity at any time during the permitted life of the well, in addition to the demonstration made under paragraph (b) above.
- (d) Loss of Mechanical Integrity: If the well fails to demonstrate mechanical integrity during a test or a loss of mechanical integrity as defined by 40 CFR § 146.8 becomes evident during operation, the permittee shall notify the Director in accordance with Part III, Section E. 10. of this permit. Furthermore, injection activities shall be terminated immediately, and operations shall not be resumed until the permittee has taken necessary actions to restore integrity to the well and EPA has given approval to recommence injection.
3. Injection Interval. Injection shall be limited to the subsurface interval **from 1510 feet to 1655 feet KB.** The injection zone is within the Bird's Nest zone of the Parachute Creek member of the Green River Formation. Additional perforations within the approved interval may be added later and shall be reported to EPA on EPA Form 7520-12. The Birds Nest injection zone sands are individually separated by calcareous shales that act as isolation barriers preventing upward fluid migration. The Uinta Formation, which extends from

surface to 1470', is the confining zone and is composed of interbedded thick impervious (confining) shales, and thin marls and siltstones with thin sand stringers, which provide an effective barrier to upward movement of injected fluids.

4. Injection Pressure Limitation.

- (a) **Injection pressure, measured at the surface, shall not exceed 317 psig.** Injection pressure shall not exceed an amount that the Director determines is appropriate to assure that injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs. In no case shall the injection pressure cause the movement of injected or formation fluids into a USDW.
- (b) The exact pressure limit may be increased or decreased by the Director to ensure that requirements of paragraph (a) are fulfilled. The permittee may request a change in the surface injection pressure limit. The request shall be accompanied by information showing the requested pressure will not initiate new fractures or propagate existing fractures. This may be shown by performing a step rate injection test (SRT), using the fluid normally injected, to determine both the instantaneous shut-in pressure (ISIP) and the formation breakdown pressure. The Director will specify, in writing to the permittee, any increase or decrease of the injection pressure limit based on the test results and other parameters reflecting actual injection operations. Injection at an increased pressure shall not commence prior to the permittee receiving written approval from the Director.
- (c) The permittee shall give thirty (30) days advance notice to the Director if the increase in (b) is sought and submit details of the proposed test at least seven (7) days in advance of the proposed test date so that the Director has adequate time to review and approve the test procedures. Results of all tests shall be submitted to the Director within ten (10) days of the test.
- (d) Any approval granted by the Director for an increase of the pressure limit, as stated in

paragraph (b) shall be made part of this permit by minor modification without further opportunity for public comment.

5. **Injection Volume Limitation.** There is no limitation on the number of barrels of water per day (BWPD) that shall be injected into this well, provided further that in no case shall injection pressure exceed that limit shown in Part II, Section C. 4. (a) of this permit.
6. **Injection Fluid Limitation.** The permittee shall not inject any hazardous substances, as defined by 40 CFR part 261, at any time during the operation of the facility; and further, no substances other than those produced brines from oil and/or gas production wells owned/operated by the permittee in the Natural Buttes/Ouray Fields.
7. **Annular Fluid.** The annulus between the tubing and the casing shall be filled with fresh water treated with a corrosion inhibitor, a scale inhibitor, and an oxygen scavenger; or other fluid as approved, in writing, by the Director.

D. MONITORING, RECORDKEEPING, AND REPORTING OF RESULTS

1. **Injection Well Monitoring Program.** Samples and measurements shall be representative of the monitored activity. The permittee shall utilize the applicable analytical methods described in Table 1 of 40 CFR § 136.3, or in Appendix III of 40 CFR Part 261, or in certain circumstances, by other methods that have been approved by the EPA Administrator. Monitoring shall consist of:
 - (a) Analysis of the injection fluids, performed:
 - (i) annually for Total Dissolved Solids, pH, Specific Conductivity, and Specific Gravity, from the common facility; however, if injection is maintained from more than one well from each common facility, then only one annual analysis is required for that facility.
 - (ii) whenever there is a change in the source of injection fluids. A comprehensive water analysis shall be submitted to the Director within thirty (30) days of any change in injection fluids.

- (b) Weekly observations of flow rate, injection pressure and annulus pressure, and cumulative volume. Observation of each shall be recorded monthly.
2. **Monitoring Information.** Records of any monitoring activity required under this permit shall include:
- (a) The date, exact place, the time of sampling or field measurements;
 - (b) The name of the individual(s) who performed the sampling or measurements;
 - (c) The exact sampling method(s) used to take samples;
 - (d) The date(s) laboratory analyses were performed;
 - (e) The name of the individual(s) who performed the analyses;
 - (f) The analytical techniques or methods used by laboratory personnel; and
 - (g) The results of such analyses.
3. **Recordkeeping.**
- (a) The permittee shall retain records concerning:
 - (i) the nature and composition of all injected fluids until three (3) years after the completion of plugging and abandonment which has been carried out in accordance with the Plugging and Abandonment Plan shown in **Appendix C**, and is consistent with 40 CFR § 146.10.
 - (ii) all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit for a period of at least five (5) years from the date of the sample, measurement or report throughout the operating life of the well.
 - (b) The permittee shall continue to retain such records after the retention period specified in paragraphs (a) (i) and (a) (ii) unless he delivers the records to the Director or obtains written approval from the Director to discard the records.

- (c) The permittee shall maintain copies (or originals) of all pertinent records at the office of **Coastal Oil & Gas Corporation, Vernal, Utah.**
4. **Reporting of Results.** The permittee shall submit an **Annual Report** to the Director summarizing the results of the monitoring required by Part II, Section D. 1. (a) and (b) of this permit. Copies of all monthly records on injected fluids, and any major changes in characteristics or sources of injected fluid shall be included in the Annual Report.

The first Annual Report shall cover the period from the effective date of the permit through December 31, of that year. Subsequently, the Annual Report shall cover the period from January 1 through December 31, and shall be submitted by **February 15** of the following year. Appendix B contains Form 7520-11 which may be copied and used to submit the annual summary of monitoring.

E. PLUGGING AND ABANDONMENT

1. **Notice of Plugging and Abandonment.** The permittee shall notify the Director forty-five (45) days before conversion, or abandonment of the well.
2. **Plugging and Abandonment Plan.** The permittee shall plug and abandon the well as provided in the Plugging and Abandonment Plan, **Appendix C.** This plan incorporates information supplied by the permittee and may contain a clarification by the EPA. The EPA reserves the right to change the manner in which the well will be plugged if the well is modified during its permitted life or if the well is not made consistent with EPA requirements for construction and mechanical integrity. The Director may require the permittee to update the estimated plugging cost periodically. Such estimates shall be based upon costs which a third party would incur to plug the well according to the plan.
3. **Cessation of Injection Activities.** After a cessation of operations of two (2) years, the permittee shall plug and abandon the well in accordance with the Plugging and Abandonment Plan, unless the permittee:
 - (a) has provided notice to the Director; and
 - (b) has demonstrated that the well will be used in the future; and
 - (c) has described actions or procedures, satisfactory

to the Director, that will be taken to ensure that the well will not endanger underground sources of drinking water during the period of temporary abandonment.

4. **Plugging and Abandonment Report.** Within sixty (60) days after plugging the well, the permittee shall submit a report on Form 7520-13 to the Director. The report shall be certified as accurate by the person who performed the plugging operation and the report shall consist of either: (1) a statement that the well was plugged in accordance with the plan; or (2) where actual plugging differed from the plan, a statement that specifies the different procedures followed.

F. FINANCIAL RESPONSIBILITY

1. **Demonstration of Financial Responsibility.** The permittee is required to maintain continuous financial responsibility and resources to close, plug and abandon the injection well as provided in the plugging and abandonment plan.
 - (a) The permittee shall submit financial statements and other information annually, or as required by EPA, in order to demonstrate that its financial position remains sound, and that it continues to have adequate financial resources, as determined by the EPA, to close, plug, and abandon the injection wells in accordance with the approved plugging and abandonment plan.
 - (b) If financial statements or other information indicate that the permittee no longer has financial resources, according to EPA criteria, to assure that the injection wells will be properly plugged and abandoned, then the permittee must make an alternate showing of financial responsibility. This showing must be acceptable to the Director and must be submitted within sixty (60) days after having been notified by EPA of the necessity for making an alternate showing of financial responsibility.
 - (c) The permittee may upon his own initiative and upon written request to EPA, change the method of demonstrating financial responsibility from financial statement coverage to a financial instrument such as a bond, letter of credit, or trust fund. Any such change must be approved by the Director.

2. **Insolvency of Financial Institution.** In the event that an alternate demonstration of financial responsibility has been approved under (b) or (c), above, the permittee must submit an alternate demonstration of financial responsibility acceptable to the Director within sixty (60) days after either of the following events occur:
- (a) The institution issuing the trust or financial instrument files for bankruptcy; or
 - (b) The authority of the trustee institution to act as trustee, or the authority of the institution issuing the financial instrument, is suspended or revoked.

PART III. GENERAL PERMIT CONDITIONS

A. EFFECT OF PERMIT

The permittee is allowed to engage in underground injection in accordance with the conditions of this permit. The permittee, as authorized by this permit, shall not construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR, Part 142 or otherwise adversely affect the health of persons. Any underground injection activity not authorized in this permit or otherwise authorized by permit or rule is prohibited. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this permit does not constitute a defense to any enforcement action brought under the provisions of Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment for any imminent and substantial endangerment to human health, or the environment, nor does it serve as a shield to the permittee's independent obligation to comply with all UIC regulations.

B. PERMIT ACTIONS

1. **Modification, Reissuance, or Termination.** The Director may, for cause or upon a request from the permittee, modify, revoke and reissue, or terminate this permit in accordance with 40 CFR §§ 124.5, 144.12, 144.39, and 144.40. Also, the permit is subject to minor

modifications for cause as specified in 40 CFR § 144.41. The filing of a request for a permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated noncompliance on the part of the permittee does not stay the applicability or enforceability of any permit condition.

2. **Conversions.** The Director may, for cause or upon a request from the permittee allow conversion of the well from a Class IID injection well to a non-Class II well. Requests to convert the injection well from its Class IID status to a non-Class II well, such as, a production well, must be made in writing to the Director. Conversion may not proceed until a permit modification indicating the conditions of the proposed conversion is received by the permittee. Conditions of the modification may include such items as, but is not limited to, approval of the proposed well rework, follow up demonstration of mechanical integrity, and well specific monitoring and reporting following the conversion.
3. **Transfers.** This permit is not transferrable to any person except after notice is provided to the Director and the requirements of 40 CFR § 144.38 are complied with. The Director may require modification, or revocation and reissuance, of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the SDWA.
4. **Operator Change of Address.** Upon the operator's change of address, notice must be given to the following EPA office:

U. S. Environmental Protection Agency
Region VIII, UIC Section (8P-W-GW)
999 18th Street, Suite 500
Denver, CO 80202-2466

C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

D. CONFIDENTIALITY

In accordance with 40 CFR Part 2 and 40 CFR § 144.5, any information submitted to EPA pursuant to this permit may be

claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

- The name and address of the permittee; and
- Information which deals with the existence, absence, or level of contaminants in drinking water.

E. GENERAL DUTIES AND REQUIREMENTS

1. **Duty to Comply.** The permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance constitutes a violation of the SDWA and is grounds for enforcement action, permit termination, revocation and reissuance, or modification. Such noncompliance may also be grounds for enforcement action under the Resource Conservation and Recovery Act (RCRA).
2. **Penalties for Violations of Permit Conditions.** Any person who violates a permit requirement is subject to civil penalties, fines, and other enforcement action under the SDWA and may be subject to such actions pursuant to the RCRA. Any person who willfully violates permit conditions may be subject to criminal prosecution.
3. **Need to Halt or Reduce Activity not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.
5. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions

of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities or similar systems, only when necessary, to achieve compliance with the conditions of this permit.

6. **Duty to Provide Information.** The permittee shall furnish the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
7. **Inspection and Entry.** The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
 - (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - (d) Sample or monitor, at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the SDWA any substances or parameters at any location.
8. **Records of Permit Application.** The permittee shall maintain records of all data required to complete the permit application and any supplemental information submitted for a period of five (5) years from the effective date of this permit. This period may be extended by request of the Director at any time.
9. **Signatory Requirements.** All reports or other information requested by the Director shall be signed and certified according to 40 CFR § 144.32.

10. Reporting of Noncompliance.

- (a) Anticipated Noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (b) Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than thirty (30) days following each schedule date.
- (c) Twenty-four Hour Reporting.
 - (i) The permittee shall report to the Director any noncompliance which may endanger health or the environment. Information shall be provided orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances by telephoning EPA at 303-312-6485 (during normal business hours) or at 303-293-1788 (for reporting at all other times). The following information shall be included in the verbal report:
 - (A) Any monitoring or other information which indicates that any contaminant may cause endangerment to an underground source of drinking water.
 - (B) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between underground sources of drinking water.
 - (ii) A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

- (d) Other Noncompliance. The permittee shall report all other instances of noncompliance not otherwise reported at the time monitoring reports are submitted. The reports shall contain the information listed in Part III, Section E. 10.(C) (ii) of this permit.

- (e) Other Information. Where the permittee becomes aware that he failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall submit such correct facts or information within two (2) weeks of the time such information became known to him.

APPENDIX A
(Conversion Details)

UPON REENTRY OF THIS TEMPORARILY ABANDONED WELL, THE
CONVERSION TO A SALT WATER DISPOSAL WELL WILL INCLUDE THE
FOLLOWING:

The Environmental Protection Agency (EPA) requires that Coastal submit for review and approval the results of an **External Mechanical Integrity Test (MIT), Part II**, that demonstrates that the injected fluids will not migrate out of the authorized injection interval through vertical channels adjacent to the wellbore. It has been determined that a **radioactive tracer survey (RATS)** (Region 8 Guidance #37), properly run, could be used to demonstrate Part II MI.

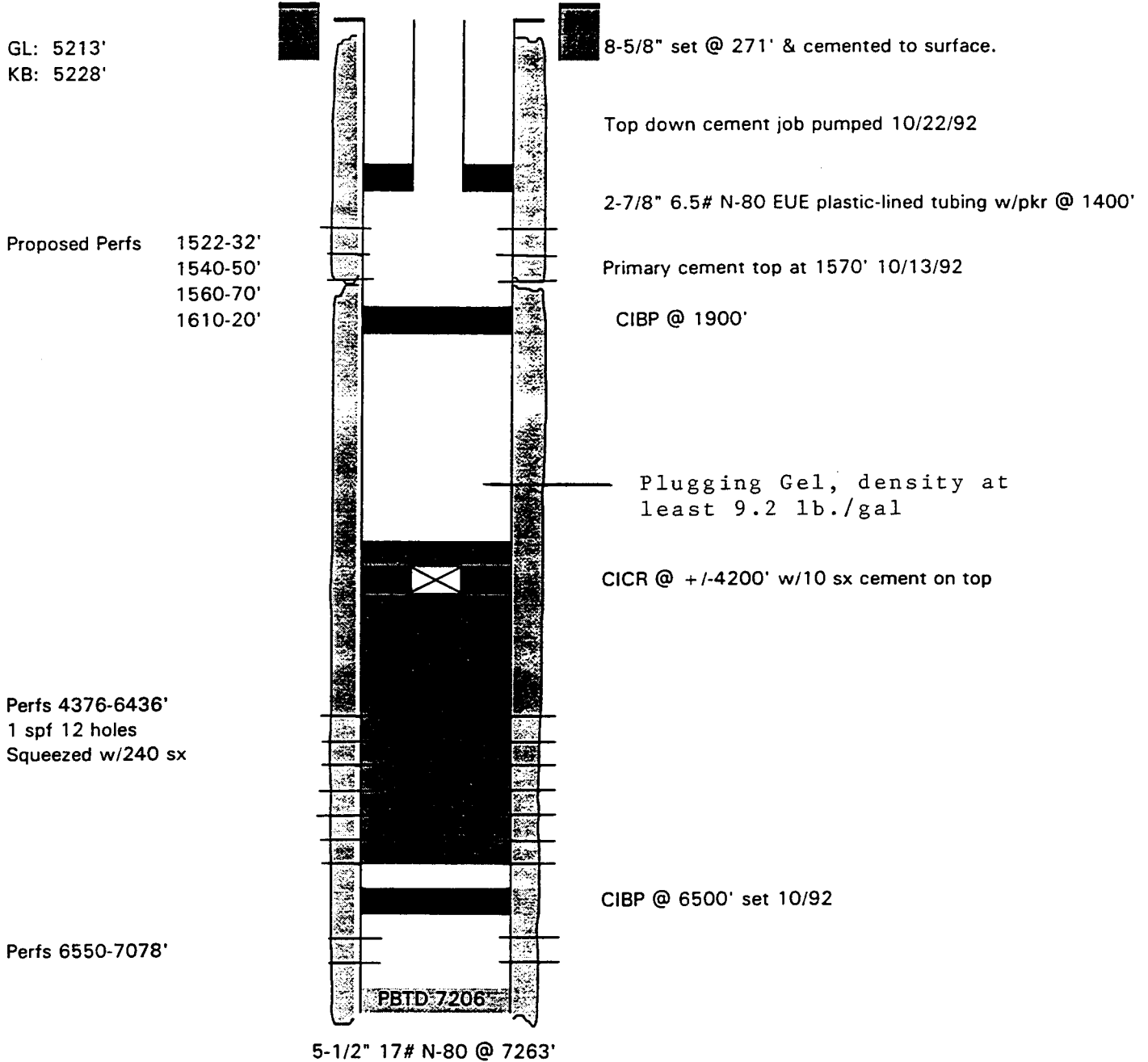
Radioactive tracer surveys require that the well be allowed to inject fluids as part of the procedure and only that volume of fluid that is necessary to conduct the appropriate test. If the results of the test proves that the well has passed Part II MI, the well may be given authorization to begin full injection operations. However, if the survey shows lack of Part II MI (upward fluid movement), the well must be repaired (cement squeezed), or the well plugged and abandoned.

The above RATS is required because the cement bond log (CBL) fails to delineate EPA-acceptable annulus cement (80% bonding) behind the 5-1/2" casing, either above the top injection perforations (1522') or over the gross injection zone. No information is available from the permittee regarding potential USDWs that may be contained in the Uinta Formation overlying the injection zone. In the absence of any USDW information, EPA must presume the presence of USDWs and set permit conditions accordingly.

For the test above, the operator of the injection well shall submit a plan prior to conducting the test. The plan will then be approved (or modified and approved) by EPA. EPA's pre-approval of the testing method will assure the operator that the test is conducted consistent with current EPA guidance, and that the test will provide meaningful results.

NBU 205 SWDW
Section 9-10S-22E
 NBU Field
 Uintah Co., Utah

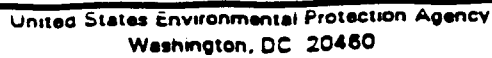
Proposed Wellbore Schematic



APPENDIX B

(Reporting Forms)

1. EPA Form 7520- 7: APPLICATION TO TRANSFER PERMIT
2. EPA Form 7520-10: COMPLETION REPORT FOR BRINE DISPOSAL
WELL
3. EPA Form 7520-11: ANNUAL DISPOSAL/INJECTION WELL
MONITORING REPORT
4. EPA Form 7520-12: WELL REWORK RECORD
5. EPA Form 7520-13: PLUGGING RECORD
6. EPA Form MIT MECHANICAL INTEGRITY TEST





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

WELL REWORK RECORD

NAME AND ADDRESS OF PERMITTEE

NAME AND ADDRESS OF CONTRACTOR

LOCATE WELL AND OUTLINE UNIT ON
SECTION PLAT — 640 ACRES

A blank 10x10 grid with cardinal directions labeled: N (North) at the top, S (South) at the bottom, E (East) on the right, and W (West) on the left.

STATE	COUNTY
-------	--------

PERMIT NUMBER	
---------------	--

SURFACE LOCATION DESCRIPTION

1/4 of ___ 1/4 of ___ 1/4 of ___ 1/4 of Section ___ Township ___ Range ___

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface
Location ____ ft. from (N/S) ____ Line of quarter section

and _____ ft. from (E/W) _____ Line of quarter section

WELL ACTIVITY

- ☐ Brine Disposal
☐ Enhanced Recovery
☐ Hydrocarbon Storage

Lease Name**Total Depth Before Rework****Total Depth After Rework**

Date Rework Commenced

Date Rework Completed

TYPE OF PERMIT

- ☐ Individual
☐ Area
 Number of Wells _____

Welt Number

WELL CASING RECORD — BEFORE REWORK

[illegible]

WELL CASING RECORD — AFTER REWORK *(Indicate Additions and Changes Only)*

[illegible]

DESCRIBE REWORK OPERATIONS IN DETAIL
USE ADDITIONAL SHEETS IF NECESSARY

WIRE LINE LOGS, LIST EACH TYPE

Log Types

Logged intervals

CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).

NAME AND OFFICIAL TITLE (Please type or print)

SIGNATURE

DATE SIGNED



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

NAME AND ADDRESS OF EXISTING PERMITTEE

NAME AND ADDRESS OF SURFACE OWNER

LOCATE WELL AND OUTLINE UNIT ON
SECTION PLAT — 640 ACRES

A blank grid for drawing a map of the United States. The grid is 10 columns wide and 10 rows high. The top row is labeled 'N' and the bottom row is labeled 'S'.

STATE

COUNTY

PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

SURFACE LOCATION DESCRIPTION
1/4 of ___ 1/4 of ___ 1/4 of ___ 1/4 of Section ___ Township ___ Range ___

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface
Location _____ ft. from (N/S) _____ Line of quarter section

and _____ ft. from (E/W) _____ Line of quarter section

WELL ACTIVITY

TYPE OF PERMIT

- ☐ Brine Disposal
- ☐ Enhanced Recovery
- ☐ Hydrocarbon Storage

- ☐
- Individual
-
- ☐
- Area

Number of Wells _____

Lease Name**Well Number**

INJECTION PRESSURE

TOTAL VOLUME INJECTED

**TUBING — CASING ANNULUS PRESSURE
(OPTIONAL MONITORING)**

[illegible]

CERTIFICATION

CERTIFICATION:
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

NAME AND OFFICIAL TITLE (Please type or print)

SIGNATURE

DATE SIGNED



PLUGGING RECORD

NAME AND ADDRESS OF PERMITTEE

NAME AND ADDRESS OF CEMENTING COMPANY

LOCATE WELL AND OUTLINE UNIT ON
SECTION PLAT — 640 ACRES

N									
S									

W E

STATE COUNTY

PERMIT NUMBER

SURFACE LOCATION DESCRIPTION

1/4 OF 1/4 OF 1/4 SECTION TOWNSHIP RANGE

LOCATE WELL IN TWO DIRECTIONS FROM NEAREST LINES OF QUARTER SECTION AND DRILLING UNIT

Surface

Location _____ ft. from (N/S) _____ Line of quarter section

and _____ ft. from (E/W) _____ Line of quarter section

TYPE OF AUTHORIZATION

- ☐ Individual Permit
☐ Area Permit
☐ Rule

Number of Wells _____

Lease Name _____

Describe in detail the manner in which the fluid was placed or the method used in interpreting it from the data

CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT(LB/FT)	TO BE PUT IN WELL (FT)	TO BE LEFT IN WELL (FT)	HOLE SIZE

- WELL ACTIVITY
- ☐ CLASS I
☐ CLASS II
☐ Brine Disposal
☐ Enhanced Recovery
☐ Hydrocarbon Storage
☐ CLASS III

METHOD OF EMPLACEMENT OF CEMENT PLUGS

- ☐ The Balance Method
☐ The Dump Box Method
☐ The Two-Plug Method
☐ Other

CEMENTING TO PLUG AND ABANDON DATA:

	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Size of Hole or Pipe in which Plug Will Be Placed (inches)							
Depth to Bottom of Tubing or Drill Pipe (ft.)							
Seals of Cement To Be Used (each plug)							
Slurry Volume To Be Pumped (cu. ft.)							
Calculated Top of Plug (ft.)							
Measured Top of Plug (if tagged ft.)							
Slurry Wt. (Lb./Gal.)							
Type Cement or Other Material (Class III)							

LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS

From	To	From	To

Signature of Cementer or Authorized Representative

Signature of EPA Representative

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(REF. 40 CFR 122.22)

NAME AND OFFICIAL TITLE (Please type or print)

SIGNATURE

DATE SIGNED

Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program, UIC Direct Implementation Program 8P-W-GW
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: ____/____/____

Test conducted by: _____

Others present: _____

Well Name: _____	Type: ER SWD	Status: AC TA UC
Field: _____		
Location: _____	Sec: _____ T _____ N / S R _____ E / W	County: _____ State: _____
Operator: _____		
Last MIT: ____/____/____	Maximum Allowable Pressure: _____	PSIG

Is this a regularly scheduled test? ☐ Yes ☐ No

Initial test for permit? ☐ Yes ☐ No

Test after well rework? ☐ Yes ☐ No

Well injecting during test? ☐ Yes ☐ No If Yes, rate: _____ bpd

Pre-test casing/tubing annulus pressure: _____ psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING PRESSURE			
Initial Pressure	psig	psig	psig
End of test pressure	psig	psig	psig
CASING / TUBING ANNULUS PRESSURE			
0 minutes	psig	psig	psig
5 minutes	psig	psig	psig
10 minutes	psig	psig	psig
15 minutes	psig	psig	psig
20 minutes	psig	psig	psig
25 minutes	psig	psig	psig
30 minutes	psig	psig	psig
_____ minutes	psig	psig	psig
_____ minutes	psig	psig	psig
RESULT	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Does the annulus pressure build back up after the test ? ☐ Yes ☐ No

APPENDIX C

(PLUGGING & ABANDONMENT PLAN)

Plugging and Abandonment Plan

Plugging and Abandonment Diagram

PLUGGING AND ABANDONMENT PLAN

The plugging and abandonment plan submitted by the applicant consists of two (2) plugs with the following specifications. The plugging and abandonment plan (see schematic, page 34 of this permit) has been reviewed for consistency with EPA requirements and has been approved by the EPA.

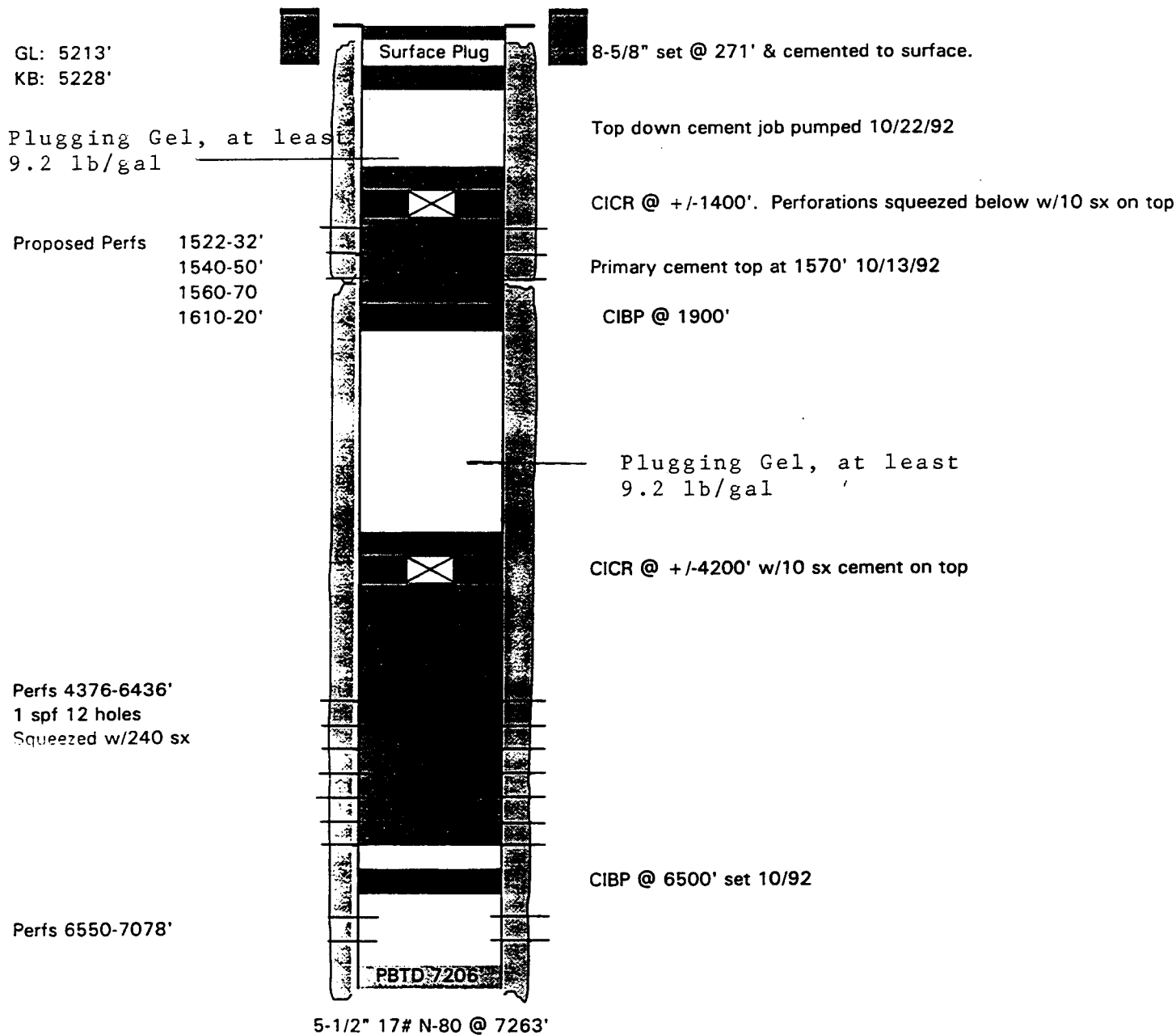
Plug #1: Move in and rig up service unit, control well. ND WH, NU BOP's. Unseat packer and POOH w/2" lined tubing. RU wireline, set cast iron cement retainer (CICR) at 1,400'. PU & TIN w/TBG. Sting into retainer and establish injection rate. Cement squeeze all perforations from approximately 1522' to 1620' with 75 sacks of Class "G" cement. Spot 10 sacks of cement on top of CICR. Place water-based mud or plugging gel of at least 9.2 lb/gal in hole.

Plug #2: POOH to 250', place cement plug from 250' to surface, filling the 5-1/2" casing. POOH. RDMO PU.

Install dry hole marker and restore location. Submit all required documentation.

NBU 205 SWDW
Section 9-10S-22E
NBU Field
Uintah Co., Utah

Proposed Schematic @ P&A



STATEMENT OF BASIS

COASTAL OIL & GAS CORPORATION

NATURAL BUTTES UNIT (NBU) #205 SWDW
EPA PERMIT NUMBER: UT2864-04501

CONTACT: Chuck Williams (8P-W-GW)
U. S. Environmental Protection Agency
999 18th Street, Suite 500
Denver, Colorado 80202-2466
Telephone: 303-312-6625

DESCRIPTION OF FACILITY AND BACKGROUND INFORMATION:

On February 2, 1999, Coastal Oil & Gas Corporation (Coastal) made application for an underground injection permit for the disposal of Green River produced water (36,953 mg/l TDS), Wasatch Formation (1,309 mg/l TDS) and Mesaverde Formation brine fluids [23,770 milligrams per liter (mg/l) to 30,500 mg/l Total Dissolved Solids (TDS)]. These fluids will be injected into the **Bird's Nest (locally known) zone** of the Parachute Creek member of the Green River Formation from the surrounding Natural Buttes and Ouray Fields of approximately 345 wells. This permit application is for the conversion of a temporarily abandoned gas well, Natural Buttes Unit (NBU) #205, to a salt water disposal well (SWDW).

The area covered by the application is in the Natural Buttes/Ouray Fields which lies within the exterior boundary of the Uintah/Ouray Indian Reservation for the following salt water disposal well:

Coastal Oil & Gas Corporation
Natural Buttes Unit (NBU) #205 SWDW
NW/4, NE/4, Section 9 - T10S - R22E
Uintah County, Utah

The permittee has sent notices to all surface landowners within one-quarter (1/4) mile of the proposed disposal well.

The proposed injection zone (1510'-1655') correlates to the injection zone in the NBU #159 (UT03784) permitted well, located about four (4) miles northwest of the proposed disposal well. The TDS content of the Bird's Nest zone in this well varies from 23,000 mg/l - 65,200 mg/l TDS; therefore, this injection zone is not an underground source of drinking water (USDW).

Coastal has submitted all required information and data necessary for permit issuance in accordance with 40 CFR Parts 144, 146 and 147, and a draft permit has been prepared.

The permit will be issued for the operating life of the well from the effective date of this permit, therefore, no reapplication will be necessary unless the permit is terminated for reasonable cause (40 CFR 144.39, 144.40, and 144.41). However, the permit will be reviewed every five (5) years.

This Statement of Basis gives the derivation of the site specific permit conditions and reasons for them, on the basis of the direct implementation regulations promulgated under the Underground Injection Control (UIC) program provisions for the Safe Drinking Water Act (SDWA). The referenced sections and conditions correspond to the sections and conditions in permit UT2864-04501. The general permit conditions for which the content is mandatory and not subject to site specific differences (based on 40 CFR Parts 144, 146 and 147), are not included in the discussion.

PART II, Section A WELL CONVERSION REQUIREMENTS

Casing and Cementing

(Condition 1)

The well was drilled, cased and cemented during October 1992 and completed as a gas well. A casing and cementing plan was submitted with the permit application and construction is as follows:

- (1) **Surface casing** (8-5/8 inch) is set in a 12-1/4 inch diameter hole to a depth of 271 feet kelly bushing (KB). The casing is secured with 150 sx's of Prem+ Type V w/2% CaCl cement which was circulated to the surface, isolating the casing from the wellbore.
- (2) **Long string casing** (5-1/2 inch) is set in an 7-7/8 inch diameter hole to a depth of 7,263 feet KB. This casing is secured with cement from total depth, up to a depth of 1,570 feet KB as calculated by a Cement Bond Log (CBL). Plugged back total depth (PBTD) is 7,206 feet. CIBP set at 6,500 feet October, 1992.

UPON REENTRY OF THIS TEMPORARILY ABANDONED WELL, THE CONVERSION TO A SALT WATER DISPOSAL WELL WILL INCLUDE THE FOLLOWING:

The Environmental Protection Agency (EPA) requires that Coastal submit for review and approval the results of an **External Mechanical Integrity Test (MIT), Part II**, that

demonstrates that the injected fluids will not migrate out of the authorized injection interval through vertical channels adjacent to the wellbore. It has been determined that a **radioactive tracer survey (RATS)** (Region 8 Guidance #37), properly run, could be used to demonstrate Part II MI.

Radioactive tracer surveys require that the well be allowed to inject fluids as part of the procedure and only that volume of fluid that is necessary to conduct the appropriate test. If the results of the test proves that the well has passed Part II MI, the well may be given authorization to begin full injection operations. However, if the survey shows lack of Part II MI (upward fluid movement), the well must be repaired (cement squeezed), or the well plugged and abandoned.

The above RATS is required because the cement bond log (CBL) fails to delineate EPA-acceptable annulus cement (80% bonding) behind the 5-1/2" casing, either above the top injection perforations (1522') or over the gross injection zone. No information is available from the permittee regarding potential USDWs that may be contained in the Uinta Formation overlying the injection zone. In the absence of any USDW information, EPA must presume the presence of USDWs and set permit conditions accordingly.

For the test above, the operator of the injection well shall submit a plan prior to conducting the test. The plan will then be approved (or modified and approved) by EPA. EPA's pre-approval of the testing method will assure the operator that the test is conducted consistent with current EPA guidance, and that the test will provide meaningful results.

Tubing and Packer Specifications

(Condition 2)

The 2-7/8 inch tubing information submitted by the applicant permittee is incorporated into the permit and shall be binding on the permittee. Because of the shallow nature of the well and the proximity of the injection zone to potential USDWs, the packer will be set at a depth of approximately 1,475 feet KB, or no more than 50 feet above the top perforations.

Monitoring Devices

(Condition 3)

For the purposes of taking tubing and tubing/long string casing annulus pressure measurements, the EPA is requiring that the permittee install 1/2 inch fittings or equivalent quick disconnect fittings, with cut-off valves at the well head on the tubing, and

on the tubing/casing annulus (**for attachment of pressure gauges**). EPA is further requiring the permittee to install a sampling tap on the line to the injection well and a flow meter that will be used to measure cumulative volumes of injected fluid. The permittee shall be required to maintain these devices in good operating condition.

Proposed Changes and Workovers.

(Condition 4)

The permittee shall give advance notice to the Director, as soon as possible, of any planned physical alterations or additions to the permitted well. Major alterations or workovers of the permitted well shall meet all conditions as set forth in this permit. A major alteration/workover shall be considered any work performed, which affects casing, packer(s), or tubing.

Demonstration of mechanical integrity shall be performed within thirty (30) days of completion of workovers and/or alterations and prior to injection activities, in accordance with Part II, Section C. 2.

The permittee shall provide all records of well workovers, logging, or other test data to EPA within sixty (60) days of completion of the activity. **Appendix B** contains samples of the appropriate reporting forms.

Formation Testing

(Condition 5)

When the injection zones are perforated, the well will be swabbed and a **representative water sample for analysis** will be taken from the injection zones. The permittee is required to determine the **injection zone fluid pore pressure** (static bottom-hole pressure). For the purpose of identifying the current formation fracture pressure, an appropriate and documented **step-rate injectivity test** (SRT) will be performed, according to SRT Guidance, in the Bird's Nest injection zone(s) during conversion using fluids normally being injected.

Postponement of Conversion.

(Condition 6)

If the well is not converted to injection status within one (1) year from the effective date of this permit, the permit will automatically expire, unless the permittee requests an extension. The request shall be made to the Director in writing, in lieu of the annual reporting requirements of Part II, Section D. 4., and shall state the reasons for the delay in conversion and confirm the protection of all USDWs. The extension under this section may not exceed one (1) year.

Financial responsibility shall be maintained during the period of inactivity in accordance with Part II, Section F. Once a permit expires under this part, the full permitting process,

including opportunity for public comment, must be repeated before authorization to inject will be re-issued.

PART II, Section B CORRECTIVE ACTION

The applicant submitted the required Area of Review (AOR) information with the permit application. The subject well, NBU #205, is the only well within the AOR. This well, when reworked, will be constructed in such a manner as to preclude any migration of injected fluids up hole. Therefore, the permittee is not required to perform any corrective action prior to the issuance of this permit.

PART II, Section C WELL OPERATION

Prior To Commencing Injection

(Condition 1)

Injection for the NBU #205 SWDW will not commence until the permittee has fulfilled all applicable conditions of the permit and has received **written authorization from the Director** as to the following:

- (1) The permittee has determined the **injection zone fluid pore pressure**; and
- (2) Submitted an **analysis of the water from the injection zones** following perforations; and
- (3) A successfully passed **Part I mechanical integrity pressure test (MIT)** has been performed and witnessed according to the current UIC Guidance for Conducting a Pressure Test to Determine if a Well Has Leaks in the Tubing, Casing or Packer. This Guidance will be made available to the permittee when the final permit is issued; and
- (4) **Results of the radioactive tracer survey (RATS)** proves that the well has passed Part II MI (External Mechanical Integrity) or corrective action completed; and
- (5) For the purpose of identifying the current formation fracture pressure, an appropriate and documented **step-rate injectivity test (SRT)** will be performed in the Bird Nest's injection zones according to the current UIC SRT Guidance; and
- (6) Submitted a **Well Rework Record (EPA Form 7520-12)**, with **newly completed well diagram** following conversion; and

- (7) **Written authorization to inject** will be given subsequent review and approval of the above.

Mechanical Integrity

(Condition 2)

A five (5) year demonstration of mechanical integrity shall include **Part I, Internal Mechanical Integrity** and if the RATS is used to demonstrate **Part II External Mechanical Integrity**, also include **Part II** to demonstrate continued integrity by using an EPA approved method.

Injection Interval

(Condition 3)

Injection will be limited to the gross Bird's Nest zone (local name) of the Parachute Creek member of the Green River Formation, being 1510' to 1655'. The permittee may find it necessary to perforate additional intervals within the above gross interval. These additional perforations may be added later and reported on EPA Form 7520-12.

The **confining zones** for the Bird's Nest zone sands which extend over a 145' interval, are individually separated by calcareous shales which act as isolation barriers for disposal. The **Uinta Formation** which extends from surface to 1470' (**upper confining zone**) is composed of interbedded thick impervious confining shales, thinner marls and siltstones with few developed thin sand stringers which should provide an effective barrier to upward movement of disposed waters. These sand bodies generally are discontinuous and are not subject to direct recharge (low yielding). Waters of less than 10,000 mg/l total dissolved solids (TDS) may be present in these sand lenses of the Uinta Formation in this area and may be considered underground sources of drinking water (USDWs). Very little water has been encountered while drilling in this area according records filed with the Utah Division of Oil, Gas, and Mining. The well construction, upon conversion, and plugging requirements will be adequate to protect any USDWs that may be present in the Uinta Formation.

Injection Pressure Limitation

(Condition 4)

The permittee has requested a maximum surface injection pressure of 450 pounds per square inch gauge (psig), with an average of 200 psig. The permittee did not supply site specific fracture pressure data to support requested pressures, therefore, a maximum surface injection pressure (Pm) was calculated using a typical fracture of 0.65 psi/ft within the Natural Buttes Field. Given this gradient, Pm is calculated using the following formula:

$$P_m = [0.65 - 0.433 S_g] d$$

Where: P_m = maximum pressure at wellhead in pounds per square inch (psig)
 S_g = specific gravity of injected fluid (unitless), assume 1.02 (average)
 d = depth to injection zone = 1510 feet

$$\text{or } P_m = [0.65 - 0.433 (1.02)] 1510 = 317 \text{ psig}$$

The permittee shall limit the maximum surface injection pressure to 317 psig, until such time as operator shall request an increase in the injection pressure. Permit provisions have been made that allows the operator to request an increase in the injection pressure. This request must be accompanied with the results of a **step-rate test** showing that the new requested pressure will not exceed the formation breakdown pressure.

Injection Volume Limitation

(Condition 5)

There is no limitation on the number of barrels of water per day (BWPD) that shall be injected into the NBU #205 SWDW, provided that in no case shall injection pressure exceed that limit shown in Part II, Section C. 4., of this permit. Injected fluids shall be limited to that which is produced in association with oil and gas from the Green River, Wasatch, and Mesaverde Formations in the Natural Buttes/Ouray Fields.

PART II, Section D MONITORING, RECORDKEEPING AND REPORTING OF RESULTS

Injection Well Monitoring Program

(Condition 1)

The permittee is required to monitor water quality of the injected fluids at annual intervals for total dissolved solids, Ph, specific conductivity, and specific gravity. Any time there is a change in the source of injection fluid, a new water quality analysis is required.

In addition, weekly observations of flow rate, injection pressure, annulus pressure and cumulative volume will be made. Observation of each will be recorded on a monthly basis.

The permittee shall maintain copies (or originals) of all pertinent records at the office of:

Coastal Oil & Gas Corporation
 Vernal, Utah.

PART II, Section E PLUGGING AND ABANDONMENT

Plugging and Abandonment Plan

(Condition 1)

The plugging and abandonment plan submitted by the applicant consists of two (2) plugs with the following specifications. The plugging and abandonment plan (see schematic, page 34 of this permit) has been reviewed for consistency with EPA requirements and has been approved by the EPA.

Plug #1: Move in and rig up service unit, control well. ND WH, NU BOP's. Unseat packer and POOH w/2" lined tubing. RU wireline, set cast iron cement retainer (CICR) at 1,400'. PU & TIN w/TBG. Sting into retainer and establish injection rate. Cement squeeze all perforations from approximately 1522' to 1620' with 75 sacks of Class "G" cement. Spot 10 sacks of cement on top of CICR. Place water-based mud or plugging gel of at least 9.2 lb/gal in hole.

Plug #2: POOH to 250', place cement plug from 250' to surface, filling the 5-1/2" casing. POOH. RDMO PU.

ND BOP's, cut casing at State required depth and install cap plate. RDMO PU. Restore location. Submit all required documentation.

PART II, Section F FINANCIAL RESPONSIBILITY**Demonstration of Financial Responsibility**

(Condition 1)

Coastal has chosen to demonstrate financial responsibility through a Surety Bond between Coastal Oil & Gas Corporation and United Pacific Insurance Company of Philadelphia, PA. The Reliance Increase Rider and Power of Attorney signed and sealed for the EPA bond #U605243-56. This bond increase, in the amount of \$19,500 is to cover the cost of plugging and abandoning this well. Coastal has also submitted an Amendment to Schedule A of the existing Standby Trust Agreement that has been reviewed and approved by the EPA.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

SEP 27 1995

SUBJECT: GROUND WATER SECTION GUIDANCE NO. 39
Pressure testing injection wells for Part I (internal)
Mechanical Integrity

FROM: Tom Pike, Chief *Tom Pike*
UIC Direct Implementation Section

TO: All Section Staff
Montana Operations Office

Introduction

The Underground Injection Control (UIC) regulations require that an injection well have mechanical integrity at all times (40 CFR 144.28 (f)(2) and 40 CFR 144.51 (g)(1)). A well has mechanical integrity (40 CFR 146.8) if:

- (1) There is no significant leak in the tubing, casing or packer; and
- (2) There is no significant fluid movement into an underground source of drinking water (USDW) through vertical channels adjacent to the injection wellbore.

Definition: Mechanical Integrity Pressure Test for Part I. A pressure test used to determine the integrity of all the downhole components of an injection well, usually tubing, casing and packer. It is also used to test tubing cemented in the hole by using a tubing plug or retrievable packer. Pressure tests must be run at least once every five years. If for any reason the tubing/packer is pulled, the injection well is required to pass another mechanical integrity test of the tubing casing and packer prior to recommencing injection regardless of when the last test was conducted. Tests run by operators in the absence of an EPA inspector must be conducted according to these procedures and recorded on either the attached form or an equivalent form containing the necessary information. A pressure recording chart documenting the actual annulus test pressures must be attached to the form.

This guidance addresses making a determination of Part I of Mechanical Integrity (no leaks in the tubing, casing or packer). The Region's policy is: 1) to determine if there are significant leaks in the tubing, casing or packer; 2) to assure that the casing can withstand pressure similar to that which would be applied if the tubing or packer fails; 3) to make the Region's test procedure consistent with the procedures utilized

by other Region VIII Primacy programs; and 4) to provide a procedure which can be easily administered and is applicable to all class I and II wells. Although there are several methods allowed for determining mechanical integrity, the principal method involves running a pressure test of the tubing/casing annulus. Region VIII's procedure for running a pressure test is intended to aid UIC field inspectors who witness pressure tests for the purpose of demonstrating that a well has Part I of Mechanical Integrity. The guidance is also intended as a means of informing operators of the procedures required for conducting the test in the absence of an EPA inspector.

Pressure Test Description

Test Frequency

The mechanical integrity of an injection well must be maintained at all times. Mechanical integrity pressure tests are required at least every five (5) years. If for any reason the tubing/packer is pulled, however, the injection well is required to pass another mechanical integrity test prior to recommencing injection regardless of when the last test was conducted. The Regional UIC program must be notified of the workover and the proposed date of the pressure test. The well's test cycle would then start from the date of the new test if the well passes the test and documentation is adequate. Tests may be required on a more frequent basis depending on the nature of the injectate and the construction of the well (see Section guidance on MITs for wells with cemented tubing and regulations for Class I wells).

Region VIII's criteria for well testing frequency is as follows:

1. Class I hazardous waste injection wells; initially [40 CFR 146.68(d)(1)] and annually thereafter;
2. Class I non-hazardous waste injection wells; initially and every two (2) years thereafter, except for old permits (such as the disposal wells at carbon dioxide extraction plants which require a test at least every five years);
3. Class II wells with tubing, casing and packer; initially and at least every five (5) years thereafter;
4. Class II wells with tubing cemented in the hole; initially and every one (1) or two (2) years thereafter depending on well specific conditions (See Region VIII UIC Section Guidance #36);
5. Class II wells which have been temporarily abandoned (TAd) must be pressure tested after being shut-in for two years; and
6. Class III uranium extraction wells; initially.

Test Pressure

To assure that the test pressure will detect significant leaks and that the casing is subjected to pressure similar to that which would be applied if the tubing or packer fails, the tubing/casing annulus should be tested at a pressure equal to the maximum allowed injection pressure or 1000 psig whichever is less. The annular test pressure must, however, have a difference of at least 200 psig either greater or less than the injection tubing pressure. Wells which inject at pressures of less than 300 psig must test at a minimum pressure of 300 psig, and the pressure difference between the annulus and the injection tubing must be at least 200 psi.

Test Criteria

1. The duration of the pressure test is 30 minutes.
2. Both the annulus and tubing pressures should be monitored and recorded every five (5) minutes.
3. If there is a pressure change of 10 percent or more from the initial test pressure during the 30 minute duration, the well has failed to demonstrate mechanical integrity and should be shut-in until it is repaired or plugged.
4. A pressure change of 10 percent or more is considered significant. If there is no significant pressure change in 30 minutes from the time that the pressure source is disconnected from the annulus, the test may be completed as passed.

Recordkeeping and Reporting

The test results must be recorded on the attached form. The annulus pressure should be recorded at five (5) minute intervals. Tests run by operators in the absence of an EPA inspector must be conducted according to these procedures and recorded on the attached form or an equivalent form. A pressure recording chart documenting the actual annulus test pressures must be attached to the submittal. The tubing pressure at the beginning and end of each test must be recorded. The volume of the annulus fluid bled back at the surface after the test should be measured and recorded on the form. This can be done by bleeding the annulus pressure off and discharging the associated fluid into a five gallon container. The volume information can be used to verify the approximate location of the packer.

Procedures for Pressure Test

1. Scheduling the test should be done at least two (2) weeks in advance.

2. Information on the well completion (location of the packer, location of perforations, previous cement work on the casing, size of casing and tubing, etc.) and the results of the previous MIT test should be reviewed by the field inspector in advance of the test. Regional UIC Guidance #35 should also be reviewed. Information relating to the previous MIT and any well workovers should be reviewed and taken into the field for verification purposes.
3. All Class I wells and Class II SWD wells should be shut-in prior to the test. A 12 to 24-hour shut-in is preferable to assure that the temperature of the fluid in the wellbore is stable.
4. Class II enhanced recovery wells may be operating during the test, but it is recommended that the well be shut-in if possible.
5. The operator should fill the casing/tubing annulus with inhibited fluid at least 24 hours in advance, if possible. Filling the annulus should be undertaken through one valve with the second valve open to allow air to escape. After the operator has filled the annulus, a check should be made to assure that the annulus will remain full. If the annulus can not maintain a full column of fluid, the operator should notify the Director and begin a rework. The operator should measure and report the volume of fluid added to the annulus. If not already the case, the casing/tubing valves should be closed, at least, 24 hours prior to the pressure test.

Following steps are at the well:

6. Read tubing pressure and record on the form. If the well is shut-in, the reported information on the actual maximum operating pressure should be used to determine test pressures.
7. Read pressure on the casing/tubing annulus and record value on the form. If there is pressure on the annulus, it should be bled off prior to the test. If the pressure will not bleed-off, the guidance on well failures (Region VIII UIC Section Guidance #35) should be followed.
8. Ask the operator for the date of the last workover and the volume of fluid added to the annulus prior to this test and record information on the form.
9. Hook-up well to pressure source and apply pressure until test value is reached.

10. Immediately disconnect pressure source and start test time (If there has been a significant drop in pressure during the process of disconnection, the test may have to be restarted). The pressure gages used to monitor injection tubing pressure and annulus pressure should have a pressure range which will allow the test pressure to be near the mid-range of the gage. Additionally, the gage must be of sufficient accuracy and scale to allow an accurate reading of a 10 percent change to be read. For instance, a test pressure of 600 psi should be monitored with a 0 to 1000 psi gage. The scale should be incremented in 20 psi increments.
11. Record tubing and annulus pressure values every five (5) minutes.
12. At the end of the test, record the final tubing pressure.
13. If the test fails, check the valves, bull plugs and casing head close up for possible leaks. The well should be retested.
14. If the second test indicates a well failure, the Region should be informed of the failure within 24 hours by the operator, and the well should be shut-in within 48 hours per Headquarters guidance #76. A follow-up letter should be prepared by the operator which outlines the cause of the MIT failure and proposes a potential course of action. This report should be submitted to EPA within five days.
15. Bleed off well into a bucket, if possible, to obtain a volume estimate. This should be compared to the calculated value obtained using the casing/tubing annulus volume and fluid compressibility values.
16. Return to office and prepare follow-up.

Alternative Test Option

While it is expected that the test procedure outlined above will be applicable to most wells, the potential does exist that unique circumstances may exist for a given well that precludes or makes unsafe the application of this test procedure. In the event that these exceptional or extraordinary conditions are encountered, the operator has the option to propose an alternative test or monitoring procedures. The request must be submitted by the operator in writing and must be approved in writing by the UIC-Implementation Section Chief or equivalent level of management.

Attachment

Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency
Underground Injection Control Program, UIC Direct Implementation Program 8P-W-GW
999 18th Street, Suite 500 Denver, CO 80202-2466

EPA Witness: _____ Date: ____ / ____ / ____

Test conducted by: _____

Others present: _____

Well Name: _____	Type: ER SWD	Status: AC TA UC
Field: _____		
Location: _____	Sec: _____ T _____ N / S R _____ E / W	County: _____ State: _____
Operator: _____		
Last MIT: ____ / ____ / ____	Maximum Allowable Pressure: _____	PSIG

Is this a regularly scheduled test? ☐ Yes ☐ No

Initial test for permit? ☐ Yes ☐ No

Test after well rework? ☐ Yes ☐ No

Well injecting during test? ☐ Yes ☐ No If Yes, rate: _____ bpd

Pre-test casing/tubing annulus pressure: _____ psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING PRESSURE			
Initial Pressure	psig	psig	psig
End of test pressure	psig	psig	psig
CASING / TUBING ANNULUS PRESSURE			
0 minutes	psig	psig	psig
5 minutes	psig	psig	psig
10 minutes	psig	psig	psig
15 minutes	psig	psig	psig
20 minutes	psig	psig	psig
25 minutes	psig	psig	psig
30 minutes	psig	psig	psig
minutes	psig	psig	psig
minutes	psig	psig	psig
RESULT	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Does the annulus pressure build back up after the test? ☐ Yes ☐ No



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

SUBJECT: GROUND WATER SECTION GUIDANCE NO. 37
Demonstrating Part II (external) Mechanical Integrity
for a Class II injection well permit.

FROM: Tom Pike, Chief
UIC Direct Implementation Section

TO: All Section Staff
Montana Operations Office

During the review for a Class II injection well permit, consideration must be given to the mechanical integrity (MI) of the well. MI demonstrates that the well is in sound condition and that the well is constructed in a manner that prevents injected fluids from entering any formation other than the authorized injection formation.

A demonstration of MI is a two part process:

PART I - **INTERNAL MECHANICAL INTEGRITY** is an assurance that there are no significant leaks in the casing/tubing/packer system.

PART II - **EXTERNAL MECHANICAL INTEGRITY** demonstrates that after fluid is injected into the formation, the injected fluids will not migrate out of the authorized injection interval through vertical channels adjacent to the wellbore.

A Class II injection well may demonstrate Part II MI by showing that injected fluids remain within the authorized injection interval. This may be accomplished as follows:

- 1) Cement bond log showing 80% bond through the an appropriate interval (Section Guidance 34),
- 2) Radioactive tracer survey conducted according to a EPA-approved procedure, or
- 3) Temperature survey conducted according to a EPA-approved procedure (Section Guidance 38).

For each test option above, the operator of the injection well should submit a plan for conducting the test. The plan will then be approved (or modified and approved) by EPA. EPA's pre-approval of the testing method will assure the operator that the



test is conducted consistent with current EPA guidance, and that the test will provide meaningful results.

Part II MI may be demonstrated either before or after issuing the Final Permit. However, if Part II is to be demonstrated after the Final Permit is issued, a provision in the permit will require the demonstration of Part II MI. The well will also be required to pass Part II MI prior to granting authorization to inject.

Radioactive tracer surveys and temperature surveys require that the well be allowed to inject fluids as part of the procedure. In these cases, a well that has shown no other demonstration of Part II MI will be allowed to inject only that volume of fluid that is necessary to conduct the appropriate test.

After the results of the test proves that the well has passed Part II MI, the well will be given authorization to begin full injection operations.

If any of the tests show a lack of Part II MI, the well will be repaired and retested, or plugged (See Headquarters Guidance #76).





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

APR 19 1994

SUBJECT: GROUND WATER SECTION GUIDANCE NO. 34
Cement bond logging techniques and interpretation

FROM: Tom Pike, Chief *[Signature]*
UIC Direct Implementation Section

TO: All Section Staff
Montana Operations Office

These procedures are to be followed when running and interpreting cement bond logs for injection and production (area of review) wells.

PART I - PREPARE THE WELL

Allow cement to cure for a sufficient time to develop full compressive strength. A safe bet is to let the cement cure for 72 hours. If you run the bond log before the cement achieves its maximum compressive strength, the log may show poor bonding. Check cement handbooks for curing times.

Circulate the hole with a fluid (either water or mud) of uniform consistency. Travel times are influenced by the type of fluid in the hole. If the fluid changes between two points, the travel times may "drift," causing difficulty in interpretation and quality control.

Be prepared to run the cement bond log under pressure to reduce the effects of micro-annulus. Micro-annulus may be caused by several reasons, but the existence of a micro-annulus does not necessarily destroy the cement's ability to form a hydraulic seal. If the log shows poor bonding, rerun the log with the slightly more pressure on the casing as was present when the cement cured. This will cause the casing to expand against the cement and close the micro-annulus.

PART II - PARAMETERS TO LOG

Amplitude (mV) - This curve shows how much acoustic signal reaches a receiver and is an important indicator of cement bond. Record the amplitude on the 3 foot spaced receiver.

Travel time (μ s) - This curve shows the amount of time it takes an acoustic signal to travel between the source and a receiver. For free pipe of a given size and weight, the travel time between points is very predictable, although variable among different company's tools. Service companies should be able to provide accurate estimates of travel times for free pipe of a given size and weight. Travel time is required as a quality control measurement. Record the travel time on the 3 foot spaced receiver.

Variable density (VDL) - Pipe signals, formation signals, and fluid signals are usually easy to recognize on the VDL. If these signals can be identified, a practical determination for the presence or absence of cement can be made. VDL is logged on the 5 foot spaced receiver.

Casing collar locator (CCL) - Used to correlate the bond log with cased hole logs and to match casing collars with the collars that show up on the VDL portion of the display.

Gamma ray - Used to correlate the bond log with other logs.

PART III - LOGGING TECHNIQUE

Calibrate the tool in free pipe at the shop, prior to, and following the log run. Include calibration data with log.

Run receivers spaced 3 feet and 5 feet from transmitter.

Run at least 3 bow-type or rigid aluminum centralizers in vertical holes, 6 centralizers in directional holes. A CCL is not an adequate centralizer.

Complete log header with casing/cement data, tool/panel data, gate settings and tool sketch showing centralizers.

Set the amplitude gate so that skipping does not occur at amplitudes greater than 5 mV.

Record amplitude with fixed gate and note position on log.

Record amplified amplitude on a 5X scale for low amplitudes.

Record amplitude and travel time on the 3 foot receiver.

Record travel time on a 100 μ s scale (150 - 250, 200 - 300).

Logging speed should be approximately 30 ft/min.

Log repeat sections.

PART IV - QUALITY CONTROL

Compare the tool calibration data to see if the tool "drifts" during logging. Differences in the calibration data may require you to re-log the well to obtain reliable data.

Compare repeat sections to see if logging results are repeatable.

Check the logged free pipe travel times with the service company charts for the specific tool and casing size used. Since the travel times depend on such factors as casing weight, type of fluid in the hole, etc., these charts should be used only as guidelines. When you are confident of the

free-pipe travel times as seen on the log, use them. When interpreting the log, a decrease in travel time (faster times) with simultaneous reduction of amplitude may show a de-centered tool. A 4 to 5 micro-second (μs) decrease in travel time corresponds to about a 35% loss of amplitude. A decrease in travel time more than 4 to 5 μs is unacceptable.

PART V - LOG INTERPRETATION

Do not rely on the service company charts for amplitudes corresponding to a good bond. These amplitudes depend on many factors: type of cement used, fluid in the hole, etc.

To estimate bond index, choose intervals on the log that correspond to 0% bond and 100% bond. Read the amplitude corresponding to 100% bond from the best-bonded interval on the log (NOTE: the accuracy of this amplitude reading is very critical to the bond index calculations). Next, find the amplitude corresponding to 0% bond. Some bond logs may not include a section with free pipe. In this instance, choose the appropriate free-pipe travel time from the service company charts for your specific tool, or from the generalized chart (TABLE 2) at the end of this guidance. To calculate a bond index of 80%, use the following equation:

$$A_{80} = 10^{[(0.2)\log(A_0) - (0.8)\log(A_{100})]}$$

where:

A_{80} = Amplitude at 80% bond (mV)
 A_0 = Amplitude at 0% bond (mV)
 A_{100} = Amplitude at 100% bond (mV)

EXAMPLE

As an example, consider a bond log showing the following conditions:

- Free pipe (0% bond) amplitude at 81 mV.
- 100 % bond amplitude at 1 mV.

Substituting the above values into the equation results in:

$$A_{80} = 10^{[(0.2)\log(81) - (0.8)\log(1)]}$$

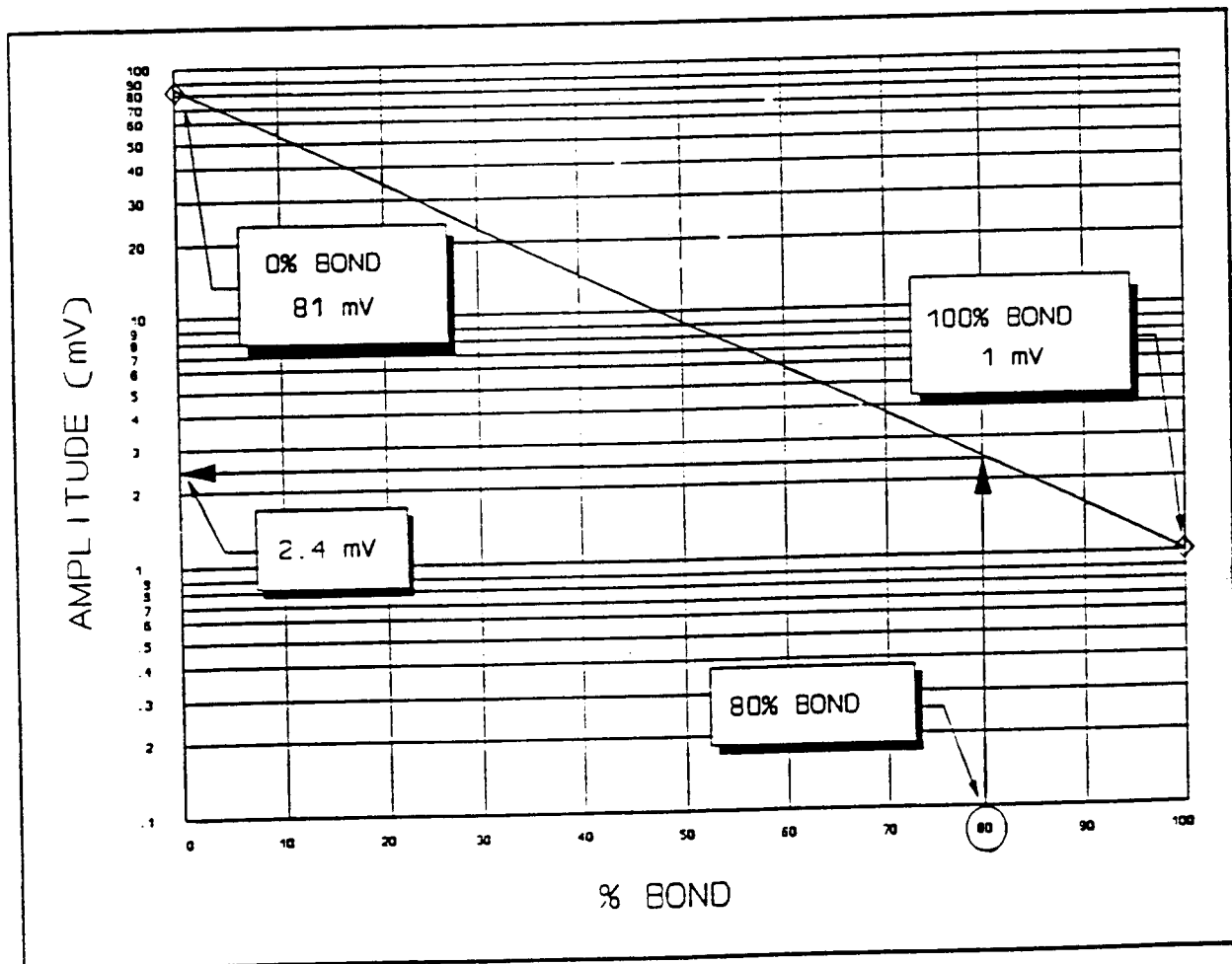
$$A_{80} = 2.41 mV$$

Another way to calculate the amplitude at 80% bond is by plotting these same log readings on a semi-log chart.

Plot the values for 0% Bond and 100% Bond vs. their respective Amplitudes on a semi-log chart - amplitudes on the log scale (y-axis), and bond indices on the linear scale (x-axis). Then, connect the points with a straight line.

To estimate the amplitude corresponding to an 80% Bond Index, enter the graph on the x-axis at 80% bond. Draw a straight line upward until you reach the diagonal line connecting the 0% and 100% points. Continue by drawing a horizontal line to the y-axis. This point on the y-axis is the amplitude corresponding to an 80% Bond Index.

Using the values from the example above, your chart will look like that shown below:



In this example, 80% bond shows an amplitude of 2.4 mV.

A convenient way to evaluate the log is to draw a line on the bond log's amplified amplitude (5X) track corresponding to the calculated 80% bond amplitude. Whenever the logged amplified amplitude (5X) curve drops below (to the left of) the drawn line, this indicates a bond of 80% or more.

PART IV - CONCLUSIONS - REMINDERS

Different pipe weights and cement types will affect the log readings, so be mindful of these factors in wells with varying pipe weights and staged cement or squeeze jobs.

Collars generally do not show up on the VDL track in well-bonded sections of casing.

Longer (slower) travel time due to cycle skipping or cycle stretch usually suggests good bonding.

Shorter (faster) travel times indicate a de-centered tool or a fast formation and will provide erroneous amplitude readings that make evaluation impossible through that section of the log. Fast formations do not assure that the cement contacts the formation all around the borehole.

Although the bond index is important, you should not base your assessment of the cement quality on that one factor alone. You should use the VDL to support any indication of bonding. Also, you must know how each portion of the CBL (VDL, travel time, amplitude, etc.) influences another.

Most 3'-5' CBL's cannot identify a 1/2" channel in cement. Therefore, you also need to consider the thickness of a cemented section needed to provide zone isolation. For adequate isolation in injection wells, the log should indicate a continuous 80% or greater bond through the following intervals as seen in TABLE 1, below:

TABLE 1 - INTERVALS FOR ADEQUATE BOND

PIPE DIAMETER (in)	CONTINUOUS INTERVAL WITH BOND \geq 80% (ft)
4-1/2	15
5	15
5-1/2	18
7	33
7-5/8	36
9-5/8	45
10-3/4	54

Adequately bonded cement by itself will not prevent fluid movement. If the bond log shows adequate bond through an interval where the geology allows fluid to move (permeable and/or fractured zones), fluids may move around perfectly bonded cement by travelling through the formation. Always cross-check your bond log with open hole logs to see that you have adequate bonding through the proper interval(s).

TABLE 2 - TRAVEL TIMES AND AMPLITUDES FOR FREE PIPE
(3 FT RECEIVER)

CASING SIZE (in)	CASING WEIGHT (lb/ft)	TRAVEL TIME (μ s)		AMPLITUDE (mV)
		1-11/16" TOOL	3-5/8" TOOL	
4-1/2	9.5	252	233	81
	11.6	250	232	81
	13.5	249	230	81
5	15.0	257	238	76
	18.0	255	236	76
	20.3	253	235	76
5-1/2	15.5	266	248	72
	17.0	265	247	72
	20.0	264	245	72
	23.0	262	243	72
7	23.0	291	271	62
	26.0	289	270	62
	29.0	288	268	62
	32.0	286	267	62
	35.0	284	265	62
	38.0	283	264	62
7-5/8	26.4	301	281	59
	29.7	299	280	59
	33.7	297	278	59
	39.0	295	276	59
9-5/8	40.0	333	313	51
	43.5	332	311	51
	47.0	330	310	51
	53.5	328	309	51
10-3/4	40.5	354	333	48
	45.5	352	332	48
	51.0	350	330	48
	55.5	349	328	48

APPENDIX
GUIDANCE: RADIOACTIVE TRACER SURVEY

FEBRUARY 28, 1996

U.S. EPA REGION VIII

**RADIOACTIVE TRACER SURVEY
GUIDELINES AND PROCEDURES**

The purpose of running a Radioactive Tracer Survey (RATS) in the referenced injection well is to show whether injected fluids will migrate vertically outside the casing after reaching the perforations. This guidance should be used to develop a specific procedure which accounts for the actual construction and operation procedures of the well in question. The actual procedure to be used must be approved prior to running the log.

GUIDELINES

- a. The gamma ray log may be run up to 60 feet/minute at a time constant (TC) of 1 second, or up to 30 feet/minute at a TC of 2 seconds, or up to 15 feet/minute at a TC of 4 seconds. **INDICATE LOGGING SPEED AND TIME CONSTANT ON THE LOG HEADING.**
- b. The logging must be done while the well is **injecting at normal operating pressure and injection volume**. The injection rate and pressure should be brought to equilibrium conditions prior to conducting the RATS.
- c. **INCLUDE A COLLAR LOCATOR** for depth control, an injector, and two detectors (one above and one below the injector).
- d. Vertical scale may be 1 inch, 2 inches, or 5 inches per 100 feet.
- e. **INDICATE IN API UNITS (OR COUNTS PER SECOND) THE HORIZONTAL SCALE.** If one gamma curve is recorded, make sure the sensitivity used is such that the tracer material will be obvious when detected and will not be confused with normal "hot spots" in the formations (i.e., gamma ray sensitivity should be such that lithology can be correlated).
- f. **INDICATE BEGINNING AND ENDING CLOCK TIMES** on each log pass.
- g. **INDICATE INJECTION RATE AND PRESSURE** during each log pass.
- h. **INDICATE VOLUME OF FLUID INJECTED** between log passes.
- i. **INDICATE VOLUME AND CONCENTRATION OF EACH SLUG** of tracer material.

- j. PROVIDE A PROFILE SHOWING THE PERCENTAGE OF FLUID LOSS ACROSS THE PERFORATED INTERVAL.

PROCEDURE

1. Using the same gamma ray sensitivity for the correlation log as outlined in paragraph (d) in the Guidelines, run a base log from the injection zone to at least 500 feet above the zone (or at least 200 feet above the top of the confining zone);
2. Commence operating well at normal operating injection rate and pressure and do so until pressure and rate stabilize;
3. Set injector just below the tubing packer assembly and inject a concentrated slug of tracer;
4. Reduce gamma ray sensitivity enough to keep the entire slug of tracer radiation within the width of the chart paper. To do this, a non-recorded pass through the slug may be run, setting the sensitivity appropriately. Drop tools to an appropriate depth below the slug and record log pass #1. Log above the upper interface until the radiation level returns to the same level as below the slug. Drop tools to an appropriate depth below the slug and record log pass #2 in the same manner as #1. Repeat this process until the slug dissipates to 1/10 of its original level (log pass #1). At this point, increase gamma ray sensitivity to the same as the base log. Make a log pass from the injection zone to 500 feet above the zone (or 200 feet above the confining zone). Drop tools to an appropriate depth below the slug, reduce sensitivity to the same as log pass #1, and record log pass up to the packer. Repeat this process until the tracer slug is gone or has stopped completely. Increase sensitivity to the same as the base log and make a final log pass from the injection zone to 500 feet above the zone (or 200 feet above the confining zone). This pass should duplicate the base log;
5. More than one pass may be shown on a log segment as long as each gamma ray curve along with its collar locator is distinguishable. Otherwise, make each pass on a separate log segment;
6. Set the RATS tool where the bottom detector is located just above the uppermost perforation and inject tracer;
7. As the slug is pumped past the bottom detector, the log trace should show an increase in gamma response;

8. Hold tool in this location for fifteen (15) minutes while pumping;
9. **An interpretation of the log must be supplied by the logging company, including a fluid loss profile across the perforations (in, at least, 25 percent increments);**
10. **Include a schematic diagram of the well on the log. The diagram should show the casing diameters and depths, tubing diameter and depth (if any), perforated intervals or open hole, total or plugged back total depth, and location of tool when slug injected. Indicate the pathway the tracer material appears to have taken by arrows.**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

STEP-RATE TEST PROCEDURE

January 12, 1999

PURPOSE:

The purpose of this document is to provide a guideline for the acquisition of a Step Rate Test (SRT). These procedures are consistent with acceptable oilfield practices. Test results may be used by the EPA to determine a Maximum Surface Injection Pressure (MSIP) to provide for the protection of the underground sources of drinking water at an injection well having mechanical integrity. Attached is a form that you may copy and use to record step rate test data.

Step rate test results must be documented with service company or other appropriate (acceptable) records and/or charts, and the test should be witnessed by an EPA inspector. Arrangements may be made by contacting the EPA Region 8 Underground Injection Control (UIC) offices using the EPA toll-free number 1-800-227-8917 (ask for extension 6137 or 6155).

STEP-RATE TEST PROCEDURE:

- 1) The well should be shut in long enough prior to testing such that the bottom hole pressures approximate shut-in formation pressures. If the shut-in well flows to the surface, the wellhead injection string should be equipped with a gauge and the static surface pressure read and recorded.
- 2) A series of successively higher injection rates are determined using guidelines below, and the elapsed time and pressure values are read and recorded for each rate and time step. Each rate step should last exactly as long as the preceding rate. If stabilized pressure values are not obtained within the rate steps suggested below, the test results may be inconclusive.

Formation Permeability (md)

Total time per rate-step (min)

≤ 5 md
≥ 10 md

60 min
30 min

- 3) Suggested injection rates:

5%	} Of Anticipated Maximum Injection Rate
10%	
20%	
40%	
60%	
80%	
100%	

- 4) Injection rates should be controlled with a constant flow regulator that has been tested prior to use. A throttling device is not sufficient.

- 5) Flow rates should be measured with a calibrated turbine flowmeter.
- 6) Record injection rates using a chart recorder or a strip chart.
- 7) Measure pressures with a down hole pressure bomb.
- 8) Measure and record injection pressures with a gauge or recorder (for immediate test results).
- 9) A plot of injection rates and the corresponding stabilized pressure values should be graphically represented as a constant slope straight line to a point at which the formation fracture, or "breakdown", pressure is exceeded. The slope of this subsequent straight line should be less than that of the before-fracture straight line.
- 10) If the formation fracture pressure has definitely been exceeded, evidenced by at least two injection rate-pressure combinations greater than the breakdown pressure, the injection pump should be stopped, the line valve closed, and the pressure is allowed to bleed-off into the injection formation. There will occur a significant instantaneous pressure drop (Instantaneous Shut-in Pressure or ISIP), after which the pressure values begin to level out. This ISIP value must be read and recorded. The ISIP obtained in this manner may be considered to be the minimum pressure required to hold open a fracture in this formation at this well.
- 11) Once the ISIP is obtained, the SRT is concluded.
- 12) In the event that the breakdown pressure was not obtained at the maximum test injection pressure utilized, the test results may indicate that the formation is accepting fluids without fracturing.

STEP RATE TEST DATA

Well: _____ **Date:** _____ **Operator** _____

STEP #1 Test Rate (5% of maximum rate) _____ (bbl/min)

Time (min)	:	_____	_____	_____	_____	_____	_____
Pressure (psi):	:	_____	_____	_____	_____	_____	_____

STEP #2 Test Rate (10% of maximum rate) _____ (bbl/min)

Time (min)	:	_____	_____	_____	_____	_____	_____
Pressure (psi):	:	_____	_____	_____	_____	_____	_____

STEP #3 Test Rate (20% of maximum rate) _____ (bbl/min)

Time (min)	:	_____	_____	_____	_____	_____	_____
Pressure (psi):	:	_____	_____	_____	_____	_____	_____

STEP #4 Test Rate (40% of maximum rate) _____ (bbl/min)

Time (min)	:	_____	_____	_____	_____	_____	_____
Pressure (psi):	:	_____	_____	_____	_____	_____	_____

STEP #5 Test Rate (60% of maximum rate) _____ (bbl/min)

Time (min)	:	_____	_____	_____	_____	_____	_____
Pressure (psi):	:	_____	_____	_____	_____	_____	_____

STEP #6 Test Rate (80% of maximum rate) _____ (bbl/min)

Time (min)	:	_____	_____	_____	_____	_____	_____
Pressure (psi):	:	_____	_____	_____	_____	_____	_____

STEP #7 Test Rate (100% of maximum rate) _____ (bbl/min)

Time (min)	:	_____	_____	_____	_____	_____	_____
Pressure (psi):	:	_____	_____	_____	_____	_____	_____

ISIP : _____ (psi)

Test Run / Witnessed By: _____

EXAMPLE STEP RATE TEST

The following is an example of a Step-Rate Test with tabular and graphic results. The step-rate test data and graphic results of the test are on the following pages.

The operator of Anywell #1 set up a SRT for the following conditions:

- A) Maximum anticipated injection rate was 4 bbl/min.
- B) Following the recommended test procedures, the operator planned on using these rates for the test:
 - 1) 5% of 4 bbl/min = 0.2 bbl/min
 - 2) 10% of 4 bbl/min = 0.4 bbl/min
 - 3) 20% of 4 bbl/min = 0.8 bbl/min
 - 4) 40% of 4 bbl/min = 1.6 bbl/min
 - 5) 60% of 4 bbl/min = 2.4 bbl/min
 - 6) 80% of 4 bbl/min = 3.2 bbl/min
 - 7) 100% of 4 bbl/min = 4.0 bbl/min
- C) The formation permeability is estimated as 100 md, therefore each step will last for 30 minutes.

For this test, the injection formation broke down at approximately 1200 psi, and the ISIP was listed as 1000 psi.

Because the injection formation will part at 1000 psi, the maximum injection pressure will be held to the ISIP. If the formation had not broken down at 1200 psi, the maximum allowable injection pressure would be the maximum pressure obtained during the test.

XAMPLE STEP RATE TEST 1TA

Well: ANNWELL #1 Date: 2/31/94 Operator Lotsa Oil Company

STEP #1 Test Rate (5% of maximum rate) 0.2 (bbl/min)

Time (min)	:	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):		<u>0</u>	<u>90</u>	<u>95</u>	<u>98</u>	<u>99</u>	<u>100</u>	<u>100</u>

STEP #2 Test Rate (10% of maximum rate) 0.4 (bbl/min)

Time (min)	:	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):		<u>80</u>	<u>170</u>	<u>185</u>	<u>195</u>	<u>199</u>	<u>200</u>	<u>200</u>

STEP #3 Test Rate (20% of maximum rate) 0.8 (bbl/min)

Time (min)	:	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):		<u>190</u>	<u>325</u>	<u>385</u>	<u>392</u>	<u>398</u>	<u>399</u>	<u>400</u>

STEP #4 Test Rate (40% of maximum rate) 1.6 (bbl/min)

Time (min)	:	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):		<u>380</u>	<u>700</u>	<u>790</u>	<u>792</u>	<u>795</u>	<u>798</u>	<u>802</u>

STEP #5 Test Rate (60% of maximum rate) 2.4 (bbl/min)

Time (min)	:	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):		<u>750</u>	<u>990</u>	<u>1030</u>	<u>1090</u>	<u>1150</u>	<u>1180</u>	<u>1201</u>

STEP #6 Test Rate (80% of maximum rate) 3.2 (bbl/min)

Time (min)	:	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):		<u>1100</u>	<u>1250</u>	<u>1326</u>	<u>1370</u>	<u>1390</u>	<u>1395</u>	<u>1400</u>

STEP #7 Test Rate (100% of maximum rate) 4.0 (bbl/min)

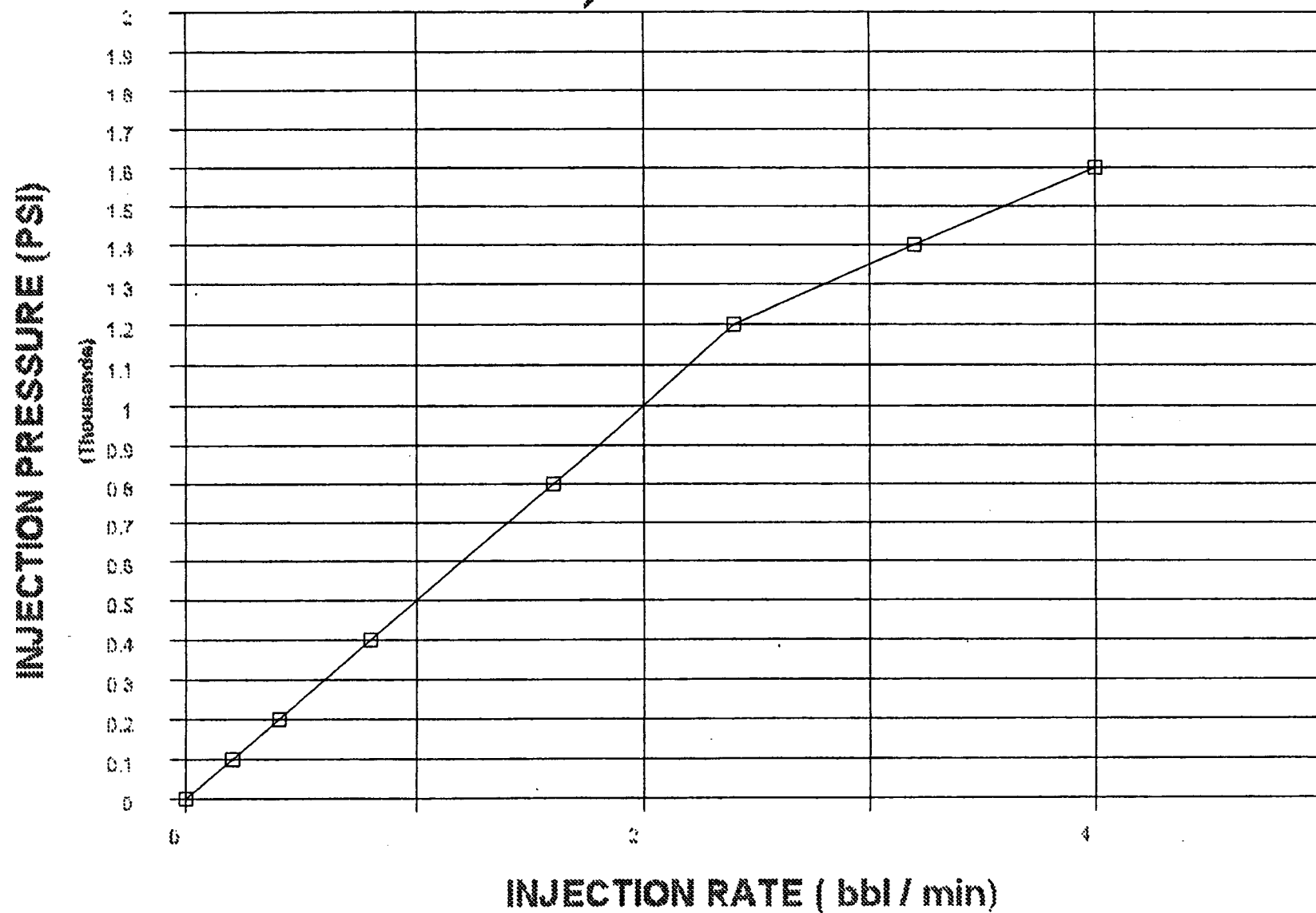
Time (min)	:	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>
Pressure (psi):		<u>1350</u>	<u>1450</u>	<u>1500</u>	<u>1530</u>	<u>1570</u>	<u>1590</u>	<u>1600</u>

ISIP : 1000 (psi)

Test Run / Witnessed By: Alan Testor

STEP-RATE TEST EXAMPLE

ATM WELL #1





January 17, 2000

Dan Jarvis
State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801

RECEIVED

JAN 19 2000

DIVISION OF
OIL, GAS AND MINING

RE: Natural Buttes 205 SWD Well

Dear Dan Jarvis,

Coastal Oil and Gas Corporation respectfully requests permission to inaugurate produced water injection into the NBU 205 SWD Well.

Please review the following documented test results:

- (1) the NBU 205 SWD Well Water Analysis,
- (2) the NBU 205 SWD Well R/A Survey, and
- (3) the NBU 205 SWD Well MIT.

If you have any questions please call me at 465-781-7021

Yours truly,

Ronald M. Routh, REM, CEA
Senior Environmental Coordinator
Coastal Oil and Gas Corporation

Enclosures (3)

cc: Sam Prutch
Paul Breshear

Coastal Oil & Gas Corporation

A SUBSIDIARY OF THE COASTAL CORPORATION
1368 S 1200 E • P.O. BOX 1148 • VERNAL UT 84078 • 435/789-4433 • FAX 435/789-4436

May 25, 2000

Mr. Mike Herbertson
State of Utah
Division of Oil, Gas and Mining
1594 W. North Temple, Suite 1210
Salt Lake City, Utah 84114

RE: NBU 205 - SWD CONVERSION

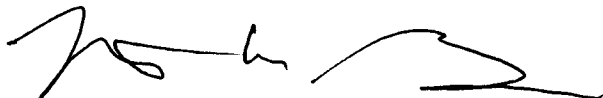
Dear Mr. Hebertson:

Attached is a cross section for the above referenced well. The cross section shows 4 adjacent wells and the NBU 205 well. The Bird's Nest Zone, the Unita Formation (upper confining zone) and the Mahogany Oil Shale (lower confining zone) are shown on the cross section.

Also attached are 3 separate water analysis of water removed from the Bird's Nest Zone. Three separate water samples were recently taken and given to three frac companies to see if this water was acceptable for use as a frac fluid. This work was done at the beginning of this month.

The current water quality is much more saline than the water samples that were analyzed in November, 1999 and January 2000. After you have reviewed this current analysis please let me know what else you would require to exempt the Bird's Nest Zone in the NBU # 205.

Sincerely,
BUYS & ASSOCIATES, INC.



Martin W. Buys
President

RECEIVED

MAY 26 2000

DIVISION OF
OIL, GAS AND MINING



HALLIBURTON ENERGY SERVICES

Post Office Box 339 / Vernal, Utah 84078 / Telephone: 435-789-2550 / Fax: 435-789-2892

Coastal Oil and Gas

May. 9, 2000

Produced water analysis

Water analysis:	Sample 1	Sample 2
	pH: 7.75	pH: 7.9
	Chlorides: 6,280 mg/l	Chlorides: 6,480 mg/l
	Carbonates: Nil	Carbonates: Nil
	Bicarbonates: 2,000 mg/l	Bicarbonates: 2,000 mg/l
	Iron: 0 mg/l	Iron: 0 mg/l
	SO ₄ : <200 mg/l	SO ₄ : <200 mg/l

Gel stability analysis: 500 mL water brought up to 3% KCl
3.13 mL LGC-4 (25# gel loading)
0.5 mL Losurf-300 surfactant (1 gal/M)
0.875 mL BC-140 crosslinker (1.75 gal/M)

The submitted fluid had good crosslink time, good stability at 140 deg. F, and broke quickly with enzyme breakers.

Recommendations: Halliburton does not recommend nor endorse the use of produced water as a base fluid for hydraulic fracturing. Variances in water quality can affect crosslink time, gel stability, and breaker effectiveness.

*Ph of Bicarb &
had been as
high as the other samples,
this fluid would
be unacceptable.*

Respectfully submitted,

Mike Stahl
Wellsite Engineer

RECEIVED

MAY 26 2000

DIVISION OF
OIL, GAS AND MINING

This report is the property of Halliburton services and neither it nor any part thereof nor copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Services.

NOTICE: This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether due to act or omission, resulting from such report or its use.



BJ SERVICES
VERNAL DISTRICT LABORATORY
Water Analysis Report

RECEIVED

MAY 26 2000

2160 S. 1500 E. VERNAL, UT 84078

Phone: (435) 781-2294

Fax: (435) 789-4530

DIVISION OF
 OIL, GAS AND MINING

Attn:
 Robert
 Martin

Date: 23-Feb-00

Company: Coastal Oil & Gas

Lease: NBU 205

State: UT

Depth:

BJ Representative:

pH:

8.75

Specific Gravity:

1.007

Specific Gravity (Corrected)

1.009

Resistivity (ohm-meters--calc.)

0.461878

Resistivity (ohm-meters--Meas.)

0.31

CATIONS

Sodium (calc.)

mg/l

6162

me/l

268.0

ppm

6119

Calcium

20

1.0

20

Magnesium

109

9.0

109

Barium

0

0.0

0

Potassium

0

0.0

0

Iron

0.00

0.0

0.00

ANIONS

Chloride

5310

149.8

5273

Sulfate

1600

33.3

1589

Carbonate

< 1

Bicarbonate

5856

96.0

5815

Total Dissolved Solids(calc.)

19058

18925

Total Hardness as CaCO₃

500

10.0

497

to high for
 trace fluid
 (M)

Comments:

Scale Analysis

CaCO₃ Factor

117412.8

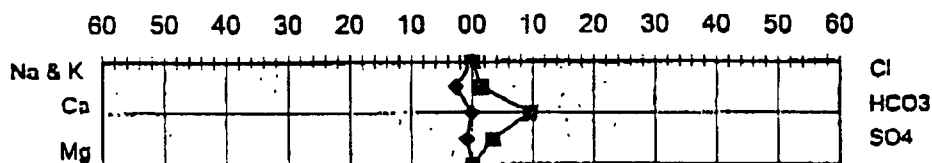
Calcium Carbonate Scale Probability → REMOTE

CaSO₄ Factor

20050

Calcium Sulfate Scale Probability → REMOTE

Stiff Plot



Schlumberger

Dowell

Client: Coastal
Well Name: NBU 205
Formation: N/A
Treatment No: N/A
Date: 05/08/00
Tested By: Tina Reese

WATER ANALYSIS REPORT

	Tank 1	Tank 2	Tank 3	Tank 4	Tank 5	Tank 6	Tank 7	Tank 8	Tank 9	Tank 10
Temp (°F)	68	68								
pH	8.0	8.0								
Specific Gravity	1.000	1.000								
Chlorides (mg/l)	7455	7810								
Iron (mg/l)	5	2								
Bicarbonates (mg/l)	2440	2074								
Carbonates (mg/l)	0	0								
Hydroxides (mg/l)	0	0								
Calcium (mg/l)	160	160								
Magnesium (mg/l)	0	0								
Sulfates (mg/l)	625	625								
Sodium (mg/l)	5808	5906								
TDS (mg/l)	16488	16575								

UT00S062

COMMENTS:

The BiCarbs are above the acceptable range

RECEIVED

MAY 20 2000

DIVISION OF
OIL, GAS AND MINING



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

June 1, 1999

Coastal Oil & Gas Corporation
P.O. Box 1148
Vernal, Utah 84078

Re: NBU #205, Section 9, Township 10 South, Range 22 East, Uintah County, Utah

43047 30341


Gentlemen:

Pursuant to Utah Admin. Code R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval:

1. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIC") Class II injection wells pursuant to Utah Admin. Code R649-1 et seq.
2. Conformance with all conditions and requirements of the complete application submitted by Coastal Oil & Gas Corporation
3. A fracture gradient will be obtained from the Step Rate Test, and submitted to the Division of Oil, Gas & Mining.
4. A tracer survey will be run to prove the integrity of the cement bond above and below the zone of injection.
5. Water quality test for a water sample taken from this well will be done.
6. Water compatibility survey on the intended injection waters will be done.

The above stipulations will be complied with prior to the issuance of a final injection permit. If you have any questions regarding this approval or the necessary requirements, please contact K. Michael Hebertson (801) 538-5333 at this office.

Sincerely,

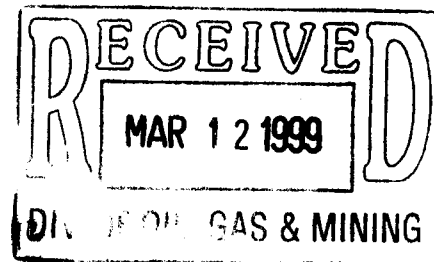

John R. Baza
Associate Director, Oil and Gas

cc: Dan Jackson, Environmental Protection Agency
Bureau of Land Management, Vernal
Uintah County Commission

To: Mr. Mike Hebertson

From: W.E.Rawlings

Subject: Coastal Oil & Gas Corp. NBU 205 - 43-047-32344
T/Os R22E Sec 9



Inclosed is a copy of the cement bond log which was run on the subject well on 03/11/99. If you need additional information please call me at (435)781-7041.



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

June 15, 2000

Sam Prutch
Coastal Oil & Gas Corporation
9 Greenway Plaza Suite 2721
Houston, TX 77046-0995

RE: SWD Conversion of NBU 205 Well, Sec. , T S, R E, Uintah County, Utah

Dear Mr. Prutch,

On June 1, 1999 the Division of Oil, Gas & Mining issued an approval to convert the above referenced well to a Class II injection well, along with the following stipulations:

1. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIG") Class II injection wells pursuant to Utah Admin. Code R649-1 et seq.
2. Conformance with all conditions and requirements of the complete application submitted by Coastal Oil & Gas Corporation
3. A fracture gradient will be obtained from the Step Rate Test and submitted to the Division of Oil, Gas & Mining.
4. A tracer survey will be run to prove the integrity of the cement bond above and below the zone of injection.
5. Water quality test for a water sample taken from this well will be done.
6. Water compatibility survey on the intended injection waters will be done.

On May 26, 2000 the Division of Oil Gas and Mining received from Buys & Associates, your consultants, a cross section showing the Upper and Lower Confining Beds for the Bird's Nest zone in the NBU 205 well and three water samples, taken from the well during the period of February 23, and May 9, 2000. These water samples showed Total Dissolved Solids values ranging from a low of 16,488 to a high of 19,058; the sample from Halliburton had no TDS calculated. These samples were taken after the required Step Rate Test and RA Tracer Survey had been performed on the well. The original water sample taken November 15, 1999 showed Total Dissolved Solids of 7,779. Unfiled reports of water samples taken between November and February indicated that the Total Dissolved Solids were in the 4,000 plus range and that the

Page Two
SWD Conversion of NBU 205 Well
June 15, 2000

water was less saline than the original sample. However the less saline water report was not filed and is only substantiated by a phone call from Mr. Ronnie Ruth, sometime between the first of December 1999 and the end of January 2000.

Owing to the inconsistent water qualities the Division can not approve this well for injection. It must be established that the water in the formation is above 10,000 TDS, and not considered an Underground Source of Drinking Water (USDW) or an application for an Aquifer Exemption as outlined in R649-5-4 (Aquifer Exemption) of the Oil and Gas Conservation General Rules would be necessary. A copy of the Aquifer Exemption Rules was sent to Coastal via. Fax, to Ronnie Ruth February 4, 2000, (Another copy is enclosed).

Should Coastal desire to pursue a permit to inject, it will be necessary to supply supporting information that the proposed injection zone contains water > 10,000 TDS, or that it qualifies for the Aquifer Exemption under Rule 649-5-4. Should you decide not to continue with the application, a Sundry Notice or letter withdrawing the application should be filed at your earliest convenience.

Sincerely



Michael Hebertson
Reclamation Specialist II

er
encl

cc: Buys and Associates
Dan Jackson, EPA
Utah County Commission
Bureau of Land Management, Vernal District Office

R649-5-4. Aquifer Exemption.

1. The board may, after notice and hearing and subject to the EPA approval, authorize the exemption of certain aquifers from classification as an USDW based upon the following findings:

1.1. The aquifer does not currently serve as a source of drinking water.

1.2. The aquifer cannot now and will not in the future serve as a source of drinking water for any of the following reasons:

1.2.1. The aquifer is mineral, hydrocarbon or geothermal energy producing, or it can be demonstrated by the applicant as part of a permit application for a Class II well operation, to contain minerals or hydrocarbons that, considering their quantity and location, are expected to be commercially producible.

1.2.2. The aquifer is situated at a depth or location that makes recovery of water for drinking water purposes economically or technologically impractical.

1.2.3. The aquifer is contaminated to the extent that it would be economically or technologically impractical to render water from the aquifer fit for human consumption.

1.2.4. The aquifer is located above a Class III well mining area subject to subsidence or catastrophic collapse.

1.3. The total dissolved solids content of the water from the aquifer is more than 3,000 and less than 10,000 mg/l, and the aquifer is not reasonably expected to be used as a source of fresh or potable water.

2. Interested parties desiring to have an aquifer exempted from classification as a USDW, shall submit to the division an application that includes sufficient data to justify the proposal. The division shall consider the application and if appropriate, will advise the applicant to submit a request to the board for an aquifer exemption.

10F3

F 3160-3
(August 1999)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

5. Lease Serial No.

U-01196-D

6. If Indian, Allotted or Tribe Name

N/A

7. If Unit or CA/Agreement, Name and/or No.
Natural Buttes Unit

8. Well Name and No.

NEU #205

9. API Well No.

43-047-32344

10. Field and Pool, or Exploratory Area

Natural Buttes

11. County or Parish, State

Uintah UT

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Coastal Oil & Gas Corporation

3a. Address

P.O. Box 1148, Vernal UT 84078

3b. Phone No. (include area code)

(435) 781-7023

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

NW/SE Sec. 9, T10S, R22E

1981' FSL & 1808' FSL

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent☒ Subsequent Report☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize☐ Alter Casing☐ Casing Repair☐ Change Plans☐ Convert to Injection☐ Deepen☐ Fracture Treat☐ New Construction☐ Plug and Abandon☐ Plug Back☐ Production (Start/Resume)☐ Reclamation☐ Recomplete☐ Temporarily Abandon☐ Water Disposal☐ Water Shut-Off☐ Well Integrity☐ Other FEAFinal

3. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

FOOM w/Circ. PU new Circ. RTH & set @ 1389'. Squeeze perfs 1522' to 1620' w/65 sks Class "G" Ont on top of Circ. PU Tbg to 1263'. Spot 22 Bbls 9.2 Brine water. PU & spot 35 sks Class "G" Ont form 293' to surface. Cut off wellhead & weld on IHM.

Well Plugged and Abandoned on 12/15/00.

RECEIVED
DEC 26 2000

CONDITIONS OF APPROVAL ATTACHED

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Charlyl Cameron

Title

Sr. Regulatory Analyst

Date 12/20/00

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Bryan X. Colman

Title

Environmental Dir.

Date

7/3/01

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lands which would entitle the applicant to conduct operations thereon.

Office

Vernal Field Office

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

OPERATOR

P. 06

FAX NO. 435 789 4436

SEP-18-2001 TUE 03:39 PM COASTAL OIL&GAS D.S. SEC

2 of 3

NBU #205

Page 1

**THE COASTAL CORPORATION
PRODUCTION REPORT****CHRONOLOGICAL HISTORY**

NBU #205

Page 1

NW/SE SECTION 9, T10S-R22E
NATURAL BUTTES UNIT
UINTAH COUNTY, UTAH
WI: 100% COGC AFE: 13838
TD: 7263' (WASATCH) SD: 9/25/92
CSG: 5-1/2" @ 7263'
PERFS: 6436'-7078'

AFE: 29480

12/15/00

PREP TO SET CMT RET.

MIRU. NDWH, RLS PKR. NU BOPE. POOH & LD 2 7/8" TBG. LOST PKR. RIH & LATCH
PKR @ 284'. POOH & LD PKR. PU & RIH W/ CICR ON 2 3/8" TBG. ATTEMPT TO SET
CICR @ 1389'. WOULD NOT SET. POOH.

12/16/00

WELL PLUGGED & ABANDONED.

FIN POOH W/ CICR. PU NEW CICR. RIH & SET @ 1389'. ESTABLISH INJ RATE OF 3
BPM @ 220#. SQZ PERFS 1522' TO 1620' W/ 65 SXS CL 'G'. SPOT 10 SXS CMT ON TOP
OF CICR. PU TBG TO 1263'. SPOT 22 BBLS 9.2# BRINE WTR. PU & SPOT 35 SXS CL 'G'
CMT F/ 293' TO SURF. CUT OFF WELLHEAD & WELD ON DHM. WELL P&A'D ON
12/15/00.

3 of 3

Well No. NBU 205
Lease No. U-01196D

SUBSEQUENT REPORT OF ABANDONMENT
CONDITIONS OF APPROVAL

1. The location was inspected on June 21, 2001, and the following recommendations are made based on that inspection. Prior to beginning reclamation, all trash and equipment shall be removed including the deadmen, tanks, pipes, catwalks, barrels, meter house, miscellaneous trash on and around the location, and any surface pipeline which is no longer in use. The location shall be rehabilitated by reshaping the disturbed areas back to the natural contours, spreading any topsoil which may have been saved, and leaving the surface fairly rough prior to seeding.

2. The required seed mixture will be:

<u>Seed</u>		<u>Lbs. per Acre</u>
Indian Ricegrass	Oryzopsis hymenoides	4
Shadscale	Atriplex confertifolia	4
Black sagebrush	Artemisia nova	4
Total lbs per acre		12

-The seed shall be drilled where possible. If the seed is broadcast, the mixture will be double the lbs. per acre, and a harrow or some other implement will be dragged over the seeded area to assure seed coverage.

-All seeding will be done immediately after the dirt work is done, regardless of the time of year.

-If the seeding is unsuccessful, reseeding may be required.

3. Once the rehabilitation is complete and vegetation has become established, you should notify this office by Form 3160-5 that the location is ready for a final abandonment inspection. When an inspection verifies that reclamation is adequate, the well will be considered a final abandoned well and bonding can be released where applicable.



July 5, 2000

Mr. Chuck Tinsley
USEPA/Region 8
999 18th Street, Suite 300
Denver, CO 80202-2466

Re: UIC Permit Application # UT2864-04501
Natural Buttes Unit, NBU #205 SWD
Uintah County, Utah

Dear Mr. Tinsley:

The purpose of this letter is to notify you that, per this letter, it is Coastal Oil & Gas Corporation's (COG) intent to withdraw the above referenced UIC application. Sundries have been filed with the state of Utah and the BLM to this end.

If you have questions, you may contact me at (435)781-7048.

Sincerely,

Deborah A. Harris, PG
Environmental Geologist

cc: Mr. Danny Huneycutt
Mr. Marty Buys
Mr. K. Michael Hebertson, UDOGM
BLM, Vernal, UT

RECEIVED

JUL 6 7 2000

DIVISION OF
OIL, GAS AND MINING

Coastal Oil & Gas Corporation

A SUBSIDIARY OF THE COASTAL CORPORATION
1368 S 1200 E • P.O. BOX 1148 • VERNAL UT 84078 • 435/789-4433 • FAX 435/789-4436

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator
Coastal Oil & Gas Corporation

3a. Address
P.O. Box 1148, Vernal UT 84078

3b. Phone No. (include area code)
435-781-7048

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1981' FSL & 1808' FEL, NWSE, SEC. 9, T1-S, R22E

5. Lease Serial No.

U-1196-D

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA/Agreement, Name and/or No.

Natural Buttes Unit

8. Well Name and No.

NBU 205

9. API Well No.

43-047-32344

10. Field and Pool, or Exploratory Area

Natural Buttes Field

11. County or Parish, State

Uintah Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|---|---|--|---|
| <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input checked="" type="checkbox"/> Other UIC Permit |
| <input type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | application |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | withdrawal |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration of work. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and casing. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

This sundry is to serve as notification to the BLM that Coastal Oil & Gas (COG) has filed with the state of Utah and with the EPA to withdraw UIC Permit Application #UT-2864-04501.

RECEIVED

JUL 07 2000

**DIVISION OF
OIL, GAS AND MINING**

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Deborah A. Harris, PG

Title

Sr. Environmental Coordinator

Date **7/5/2000**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes		5. Lease Designation and Serial Number U- -1196-D 6. Indian, Allottee or Tribe Name: NA 7. Unit Agreement Name: Natural Buttes Unit 8. Well Name and Number: NBU 205 9. API Well Number: 43-047-32344 10. Field and Pool, or Wildcat Natural Buttes Field
1. Type of Well: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER:		
2. Name of Operator Coastal Oil & Gas Corporation		
3. Address and Telephone Number. P.O. Box 1148, Vernal UT 84078		
4. Location of Well Footages: 1981' FSL & 1808' FEL QQ, Sec., T., R., M.: NWSE, SECTION 9, T10S, R22E		County: Uintah State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
<input type="checkbox"/> Abandon <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input type="checkbox"/> Multiple Completion <input checked="" type="checkbox"/> Other <u>Withdrawal of application for UIC permit</u>	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Recomplete <input type="checkbox"/> Perforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off	<input type="checkbox"/> Abandon* <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input type="checkbox"/> Other _____	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Perforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off
Approximate date work will start _____		Date of work completion _____ Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form. * Must be accompanied by a cement verification report.	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Per this sundry, Coastal Oil & Gas (COG) requests withdrawal of the application for UIC Permit application #UT2864-04501.

1-Film
2-File
~~3-Log/VLD~~

RECEIVED

JUL 07 2000

DIVISION OF
OIL, GAS AND MINING

13. Name & Signature <u>Deborah A. Harris</u>	Title <u>Sr. Environmental Coordinator</u>	Date <u>7/5/2000</u>
(This space for State use only)		

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.

U-1196-D

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA/Agreement, Name and/or No.

Natural Buttes Unit

8. Well Name and No.

NBU 205

9. API Well No.

43-047-32344

10. Field and Pool, or Exploratory Area

Natural Buttes Field

11. County or Parish, State

Uintah Utah

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Coastal Oil & Gas Corporation

3a. Address

P.O. Box 1148, Vernal UT 84078

3b. Phone No. (include area code)

435-781-7048

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1981' FSL & 1808' FEL, NWSE, SEC. 9, T1-S, R22E

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☐ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☐ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☒ Other **UIC Permit**

application

withdrawal

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration of work. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and well logs. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed when testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

This sundry is to serve as notification to the BLM that Coastal Oil & Gas (COG) has filed with the state of Utah and with the EPA to withdraw UIC Permit Application #UT-2864-04501.

**Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY**

RECEIVED

JUL 11 2000

**DIVISION OF
OIL, GAS AND MINING**

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Deborah A. Harris, PG

Title

Sr. Environmental Coordinator

Date **7/5/2000**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		7. If Unit or CA/Agreement, Name and/or No. Natural Buttes Unit
2. Name of Operator Coastal Oil & Gas Corporation		8. Well Name and No. NEU #205
3a. Address P.O. Box 1148, Vernal UT 84078	3b. Phone No. (include area code) (435) 781-7023	9. API Well No. 43-047-32344
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) NW/SE, Sec. 9, T10S, R22E 1981' FSL & 1808' FEL		10. Field and Pool, or Exploratory Area Natural Buttes
		11. County or Parish, State Utah UT

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other P&A
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Coastal Oil & Gas Corporation requests authorization to P&A the subject well. Prior to conversion to a SWD well all hydrocarbon reservoirs were tested and any additional potential would have been uneconomical to try to recover. After conversion to a SWD well in the Birds Nest formation approval to inject water into this zone could not be obtained from the EPA due to the water from this zone being too "fresh" to qualify for an aquifer exemption. Plug and abandonment is the only viable economic option.

Please refer to the attached Plug & Abandon Procedure

RECEIVED

AUG 22 2000

Federal Approval Of This
Action Is Necessary

COPY SENT TO OPERATOR
Date: 8-22-00
Initials: CHD

DIVISION OF
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Katy Dow

Title

Environmental Jr. Analyst

Date **8/21/00**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Accepted by the

Utah Division of

Oil, Gas and Mining

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

FOR RECORD ONLY

Plug & Abandon Procedure

NBU 205

Section 9 T10S R22E
Natural Buttes Field
Uintah County, Utah

Well Data:

Location: NW 1/4 SE 1/4 Sec 9 T10S R22E

Elevation: GR: 5,213' KB: 5,228'

Total Depth: 7,263' PBTD: 2,500' (CIBP)

Casing: 8-5/8", 24#, J-55 @ 271'
5-1/2", 17#, N-80 @ 7,263'

Perforations: 1522'–1532', 1540'–1550', 1560'–1570', 1610'–1620'

Tubing: 2-7/8", 6.5#, N-80, 8rd @ 1,429' w/ Arrowset 1-X packer @ 1,390'

Tubular Data:

Description	<u>ID</u> Inches	<u>Drift</u> Inches	<u>Capacity</u> Bbls / ft	<u>Burst</u> psi	<u>Collapse</u> psi
8-5/8", 36#, J-55	8.097	7.972	0.0637	2,950	1,370
5-1/2", 17#, N-80	4.892	4.767	0.0232	7,740	6,280
2-7/8", 6.5#, N-80	2.441	2.347	0.00579	10,570	11,160

Present Status:

Temporary Abandoned

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AUG 22 2000

DIVISION OF
OIL, GAS AND MINING

Procedure:

1. Notify BLM / EPA / State 24 hours prior to MI&RU for P&A.
2. MI&RU work over rig. NDWH, NUBOP.
3. Release Arrow 1-X packer @ 1,390', POOH & lay down 2-7/8" plastic lined tubing.
4. RIH w/ cast iron cement retainer on 2-3/8" tubing. Set CICR @ +/-1,400'
5. Pressure test tubing / casing annulus to 500 psi and establish injection rate down tubing.
6. Squeeze perforations 1,522' – 1,620' w/ 75 sx class "G" cement. Sting out of retainer and spot 10 sx cement on top of retainer.
7. PU to +/-1,310', reverse out excess cement & spot 25 bbls 9.2 ppg fluid from 1,310' to 250'.
8. POOH w/ tubing to 250' & spot 30 sx class "G" cement from 250' to surface.
9. Cut off 8-5/8" & 5-1/2" casing 3' below ground level and weld on dry hole marker.
10. Clean up and restore location.

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DIVISION OF
OIL, GAS AND MINING

Current Wellbore Schematic

Elevation GL: 5213'

WELL: NBU 205

COUNT Uintah

SEC: 9

Elevation KB: 5228'

FIELD: **Natural Buttes**

STATE: Utah

TWS: 10S

RGE: 22E

KB: 15'

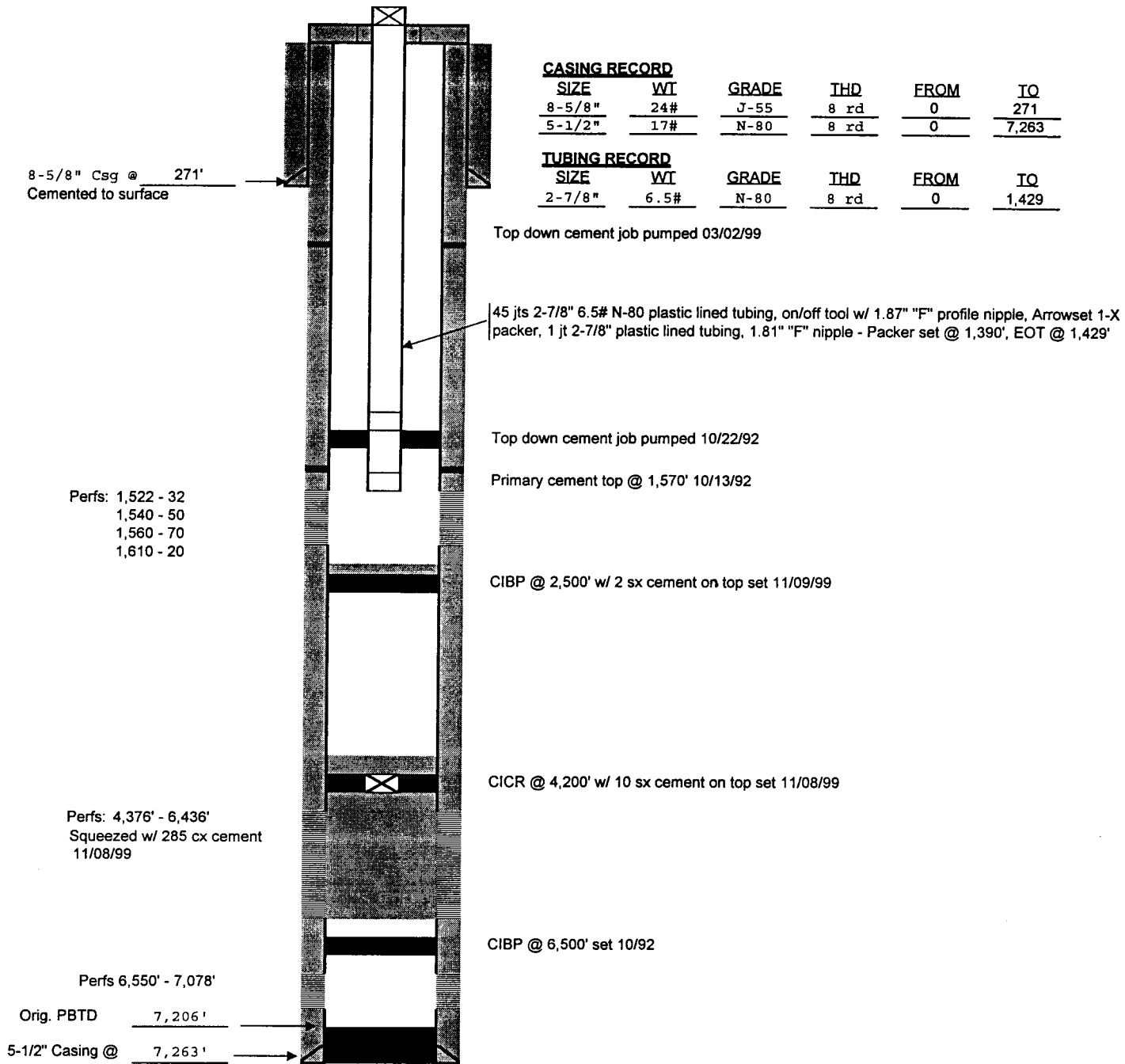


Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains. The *Agrobacterium* strains were grown in the YEA medium for 24 h at 28°C. The cell concentration of the strains was adjusted to 10⁸ cells/ml. The cell suspension was mixed with the plant tissue and incubated for 24 h at 28°C. The plant tissue was then cultured on the selective medium. The transformation efficiency was determined as the number of transformants per 100 mg of plant tissue. The data are the mean values of three independent experiments.

OIL *See* **Crude Oil**

Proposed Wellbore Schematic after P&A

Elevation GL: 5213'
 Elevation KB: 5228'
 KB: 15'

WELL: NBU 205
 FIELD: Natural Buttes

COUNT Uintah
 STATE: Utah

SEC: 9
 TWS: 10S
 RGE: 22E

Cut off 3' below GL & weld on
 dry hole marker

8-5/8" Csg @ 271'
 Cemented to surface

Perfs: 1,522 - 32
 1,540 - 50
 1,560 - 70
 1,610 - 20

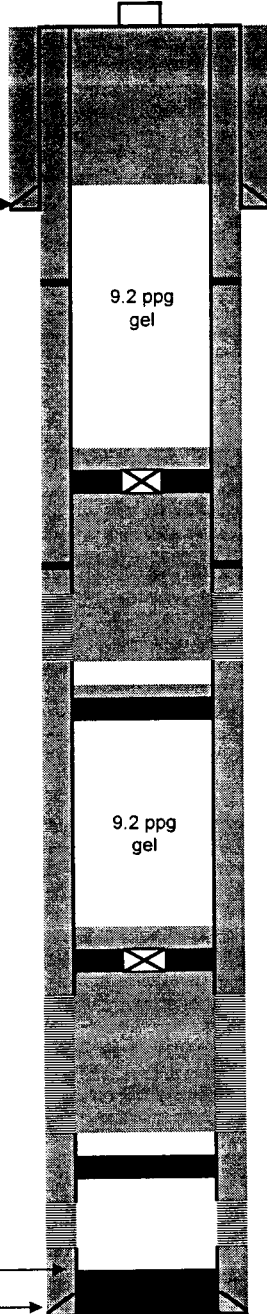
Squeeze w/ 75 sx cement

Perfs: 4,376' - 6,436'
 Squeezed w/ 285 cx cement
 11/08/99

Perfs 6,550' - 7,078'

Orig. PBDT 7,206'

5-1/2" Casing @ 7,263'



CASING RECORD

SIZE	WT	GRADE	THD	FROM	TO
8-5/8"	24#	J-55	8 rd	0	271
5-1/2"	17#	N-80	8 rd	0	7,263

TUBING RECORD

SIZE	WT	GRADE	THD	FROM	TO
2-7/8"	6.5#	N-80	8 rd	0	1,390

Top down cement job pumped 03/02/99

CICR @ +/-1,400' w/ 10 sx cement on top

Top down cement job pumped 10/22/92

Primary cement top @ 1,570' 10/13/92

CIBP @ 2,500' w/ 2 sx cement on top set 11/09/99

CICR @ 4,200' w/ 10 sx cement on top set 11/08/99

CIBP @ 6,500' set 10/92

Oil, Gas & Minerals



API 43-047-32344
9, T10S, 22E

October 10, 2000

Mr. Dan Jackson
USEPA/Region 8
999 18th Street, Suite 300
Denver, CO 80202-2466

Re: UIC Permit Application # UT2864-04501
Natural Buttes Unit, NBU #205 SWD
Uintah County, Utah

Dear Mr. Jackson:

The purpose of this letter is to notify you that, per this letter, it is Coastal Oil & Gas Corporation's (COG) intent to plug and abandon the above referenced well. A copy of the proposed plugging and abandoning procedure is attached. It is my understanding that you require 45-day notification prior to COG beginning this procedure.

If you have questions, you may contact me at (435)781-7048.

Sincerely,

Deborah A. Harris, PG
Environmental Geologist

cc: Mr. Danny Huneycutt
Mr. Marty Buys
— Mr. K. Michael Hebertson, UDOGM
BLM, Vernal, UT
Mr. Sam Prutch

RECEIVED

OCT 11 2000

DIVISION OF
OIL, GAS AND MINING

Coastal Oil & Gas Corporation

A SUBSIDIARY OF THE COASTAL CORPORATION
1368 S 1200 E • P.O. BOX 1148 • VERNAL UT 84078 • 435/789-4433 • FAX 435/789-4436

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL ☐ GAS WELL ☐ OTHER _____

2. NAME OF OPERATOR:
El Paso Production Oil & Gas Company

3. ADDRESS OF OPERATOR: 8 South 1200 East CITY Vernal STATE Utah ZIP 84078 PHONE NUMBER: 435-789-4433

4. LOCATION OF WELL

FOOTAGES AT SURFACE:

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

5. LEASE DESIGNATION AND SERIAL NUMBER:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

8. WELL NAME and NUMBER:

Exhibit "A"

9. API NUMBER:

10. FIELD AND POOL, OR WILDCAT:

COUNTY:

STATE:

UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION

☐ NOTICE OF INTENT
(Submit in Duplicate)

Approximate date work will start:

☐ SUBSEQUENT REPORT
(Submit Original Form Only)

Date of work completion:

☐ ACIDIZE

☐ ALTER CASING

☐ CASING REPAIR

☐ CHANGE TO PREVIOUS PLANS

☐ CHANGE TUBING

☐ CHANGE WELL NAME

☐ CHANGE WELL STATUS

☐ COMMINGLE PRODUCING FORMATIONS

☐ CONVERT WELL TYPE

☐ DEEPEN

☐ FRACTURE TREAT

☐ NEW CONSTRUCTION

☐ OPERATOR CHANGE

☐ PLUG AND ABANDON

☐ PLUG BACK

☐ PRODUCTION (START/RESUME)

☐ RECLAMATION OF WELL SITE

☐ RECOMPLETE - DIFFERENT FORMATION

☐ REPERFORATE CURRENT FORMATION

☐ SIDETRACK TO REPAIR WELL

☐ TEMPORARILY ABANDON

☐ TUBING REPAIR

☐ VENT OR FLARE

☐ WATER DISPOSAL

☐ WATER SHUT-OFF

☒ OTHER: Name Change

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

As a result of the merger between The Coastal Corporation and a wholly owned subsidiary of El Paso Energy Corporation, the name of Coastal Oil & Gas Corporation has been changed to El Paso Production Oil & Gas Company effective March 9, 2001.

See Exhibit "A"

Bond # 400JU0708

Coastal Oil & Gas Corporation

NAME (PLEASE PRINT)

John T. Elzner

TITLE Vice President

SIGNATURE

DATE 06-15-01

El Paso Production Oil & Gas Company

NAME (PLEASE PRINT)

John T. Elzner

TITLE Vice President

SIGNATURE

DATE 06-15-01

(This space for State use only)

RECEIVED

JUN 19 2001

DIVISION OF
OIL, GAS AND MINING

State of Delaware
Office of the Secretary of State

PAGE 1

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "COASTAL OIL & GAS CORPORATION", CHANGING ITS NAME FROM "COASTAL OIL & GAS CORPORATION" TO "EL PASO PRODUCTION OIL & GAS COMPANY", FILED IN THIS OFFICE ON THE NINTH DAY OF MARCH, A.D. 2001, AT 11 O'CLOCK A.M.

RECEIVED

JUN 4 2001

DIVISION OF
OIL GAS AND MINING



Harriet Smith Windsor
Harriet Smith Windsor, Secretary of State

0610204 8100

AUTHENTICATION: 1061007

010162788

DATE: 04-03-01

CERTIFICATE OF AMENDMENT

OF

CERTIFICATE OF INCORPORATION

COASTAL OIL & GAS CORPORATION (the "Company"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, DOES HEREBY CERTIFY:

FIRST: That the Board of Directors of the Company, by the unanimous written consent of its members, filed with the minutes of the Board, adopted a resolution proposing and declaring advisable the following amendment to the Certificate of Incorporation of the Company:

RESOLVED that it is deemed advisable that the Certificate of Incorporation of this Company be amended, and that said Certificate of Incorporation be so amended, by changing the Article thereof numbered "FIRST." so that, as amended, said Article shall be and read as follows:

"FIRST. The name of the corporation is El Paso Production Oil & Gas Company."

SECOND: That in lieu of a meeting and vote of stockholders, the stockholders entitled to vote have given unanimous written consent to said amendment in accordance with the provisions of Section 228 of the General Corporation Law of the State of Delaware.

THIRD: That the aforesaid amendment was duly adopted in accordance with the applicable provisions of Sections 242 and 228 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, said COASTAL OIL & GAS CORPORATION has caused this certificate to be signed on its behalf by a Vice President and attested by an Assistant Secretary, this 9th day of March 2001.

COASTAL OIL & GAS CORPORATION



David L. Siddall
Vice President

Attest:


(Margaret E. Roark, Assistant Secretary)

RECEIVED

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 11:00 AM 03/09/2001
010118394 - 0610204

JUN 19 2001

DIVISION OF
OIL, GAS AND MINING



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

RECEIVED

JUL 12 2001

DIVISION OF
OIL, GAS AND MINING

In Reply Refer To:

3106

UTSL-065841

(UT-924)

JUL 10 2001

NOTICE

El Paso Production Oil & Gas Company : Oil and Gas
Nine Greenway Plaza :
Houston TX 77046-0095 :

Name Change Recognized

Acceptable evidence has been received in this office concerning the name change of Coastal Oil & Gas Corporation into El Paso Production Oil & Gas Company with El Paso Production Oil & Gas Company being the surviving entity.

For our purposes, the name change is recognized effective March 9, 2001.

The oil and gas lease files identified on the enclosed exhibit have been noted as to the name change. The exhibit was compiled from a list of leases obtained from our computer program. We have not abstracted the lease files to determine if the entities affected by this name change hold an interest in the leases identified nor have we attempted to identify leases where the entities are the operator on the ground maintaining no vested recorded title or operating rights interests. We will be notifying the Minerals Management Service and all applicable Bureau of Land Management offices of the change by a copy of this notice. If additional documentation for changes of operator are required by our Field Offices, you will be contacted by them.

If you identify additional leases in which the entities maintain an interest, please contact this office and we will appropriately document those files with a copy of this Notice.

Due to the name change, the name of the principal/obligor on the bond is required to be changed from Coastal Oil & Gas Corporation to El Paso Production Oil & Gas Company. You may accomplish this either by consent of surety rider on the original bond or a rider to the original bond. The bonds are held in Wyoming and Colorado.



Opolonia L. Abeyta
Acting Chief, Branch of
Minerals Adjudication

Enclosure

1. Exhibit of Leases (1 pp)

cc: Moab Field Office
Vernal Field Office
MMS, Reference Data Branch, MS3130, PO Box 5860, Denver CO 80217
~~State of Utah, DOGM~~, Attn: Jim Thompson (Ste. 1210), Box 145801, SLC UT 84114
Teresa Thompson (UT-922)
Joe Incardine (UT-921)

Exhibit of Leases

UTUSL-065841A	UTU-47172	UTU-74415	UTU-53860
UTU-28652	UTU-50687	UTU-74416	UTU-66401
UTU-37943	UTU-52298	UTU-75091	UTU-67868
UTU-44089	UTU-0109054	UTU-75096	UTU-65389
UTU-44090A	UTU-0143511	UTU-75097	UTU-77084
UTU-61263	UTU-0143512	UTU-75673	UTU-61430
UTU-00343	UTU-38401	UTU-76259	UTU-72633
UTU-02651	UTU-38411	UTU-76260	UTU-72650
UTU-02651B	UTU-38418	UTU-76261	UTU-49692
UTU-0142175	UTU-38419	UTU-76493	UTU-57894
UTU-70235	UTU-38420	UTU-76495	UTU-76829
UTU-70406	UTU-38421	UTU-76503	UTU-76830
UTU-74954	UTU-38423	UTU-78228	UTU-76831
UTU-75132	UTU-38424	UTU-78714	
UTU-75699	UTU-38425	UTU-78727	
UTU-76242	UTU-38426	UTU-78734	
UTU-78032	UTU-38427	UTU-79012	
UTU-4377	UTU-38428	UTU-79011	
UTU-4378	UTU-53861	UTU-71694	
UTU-7386	UTU-58097	UTU-00576	
UTU-8344A	UTU-64376	UTU-00647	
UTU-8345	UTU-65222	UTU-01470D	
UTU-8347	UTU-65223	UTU-0136484	
UTU-8621	UTU-66746	UTU-8344	
UTU-14646	UTU-67178	UTU-8346	
UTU-15855	UTU-67549	UTU-8648	
UTU-25880	UTU-72028	UTU-28212	
UTU-28213	UTU-72632	UTU-30289	
UTU-29535	UTU-73009	UTU-31260	
UTU-29797	UTU-73010	UTU-33433	
UTU-31736	UTU-73013	UTU-34711	
UTU-34350	UTU-73175	UTU-46699	
UTU-34705	UTU-73434	UTU-78852	
UTU-37116	UTU-73435	UTU-78853	
UTU-37355	UTU-73444	UTU-78854	
UTU-37573	UTU-73450	UTU-075939	
UTU-38261	UTU-73900	UTU-0149767	
UTU-39223	UTU-74409	UTU-2078	
UTU-40729	UTU-74410	UTU-44426	
UTU-40736	UTU-74413	UTU-49530	
UTU-42469	UTU-74414	UTU-51026	

OPERATOR CHANGE WORKSHEET**ROUTING**

1. GLH		4-KAS
2. CDW✓		5-LP ✓
3. JLT		6-FILE

Enter date after each listed item is completed

Change of Operator (Well Sold)

Designation of Agent

Operator Name Change (Only)

X **Merger**The operator of the well(s) listed below has changed, effective: **3-09-2001**

FROM: (Old Operator):
COASTAL OIL & GAS CORPORATION
Address: 9 GREENWAY PLAZA STE 2721
HOUSTON, TX 77046-0995
Phone: 1-(713)-418-4635
Account N0230

TO: (New Operator):
EL PASO PRODUCTION OIL & GAS COMPANY
Address: 9 GREENWAY PLAZA STE 2721 RM 2975B
HOUSTON, TX 77046-0995
Phone: 1-(832)-676-4721
Account N1845

CA No.**Unit: NATURAL BUTTES****WELL(S)**

NAME	API NO	ENTITY NO	SEC TWN RNG	LEASE TYPE	WELL TYPE	WELL STATUS
NBU 141	43-047-32017	2900	06-10S-22E	FEDERAL	GW	P
CIGE 179-6-10-22	43-047-32400	2900	06-10S-22E	FEDERAL	GW	P
NBU 243	43-047-32930	2900	06-10S-22E	FEDERAL	GW	P
CIGE 196-6-10-22	43-047-33003	2900	06-10S-22E	FEDERAL	GW	P
NBU 340X	43-047-34015	2900	06-10S-22E	FEDERAL	GW	P
NBU 341	43-047-33726	2900	06-10S-22E	FEDERAL	GW	P
NBU 244	43-047-32931	2900	07-10S-22E	FEDERAL	GW	P
NBU 342	43-047-33727	2900	07-10S-22E	FEDERAL	GW	P
NBU 245	43-047-33004	2900	08-10S-22E	FEDERAL	GW	P
NBU 343	43-047-33719	2900	08-10S-22E	FEDERAL	GW	P
CIGE 250	43-047-33743	2900	08-10S-22E	FEDERAL	GW	P
UTE TRAIL U 83X-9H	43-047-15388	2900	09-10S-22E	FEDERAL	GW	P
NBU CIGE 14-9-10-22	43-047-30484	2900	09-10S-22E	FEDERAL	GW	P
NBU 152	43-047-31990	2900	09-10S-22E	FEDERAL	GW	P
NBU 151	43-047-31991	2900	09-10S-22E	FEDERAL	GW	P
NBU 150	43-047-31992	2900	09-10S-22E	FEDERAL	GW	P
NBU 204	43-047-32342	2900	09-10S-22E	FEDERAL	GW	P
NBU 205	43-047-32344	2900	09-10S-22E	FEDERAL	GW	P
NBU 291	43-047-32911	2900	09-10S-22E	FEDERAL	GW	P
NBU 292	43-047-33474	2900	09-10S-22E	FEDERAL	GW	P

OPERATOR CHANGES DOCUMENTATION

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 06/19/2001
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 06/19/2001
3. The new company has been checked through the **Department of Commerce, Division of Corporations Database** on: 06/21/2001
4. Is the new operator registered in the State of Utah: YES Business Number: 608186-0143

5. If **NO**, the operator was contacted contacted on: N/A
6. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the (merger, name change, or operator change for all wells listed on Federal or Indian leases on: 07/10/2001
7. **Federal and Indian Units:** The BLM or BIA has approved the successor of unit operator for wells listed on: 07/10/2001
8. **Federal and Indian Communization Agreements ("CA"):** The BLM or the BIA has approved the operator change for all wells listed involved in a CA on: 07/10/2001
9. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database** on: 08/08/2001
2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 08/08/2001
3. Bond information entered in RBDMS on: N/A
4. Fee wells attached to bond in RBDMS on: N/A

STATE BOND VERIFICATION:

1. State well(s) covered by Bond No.: N/A

FEDERAL BOND VERIFICATION:

1. Federal well(s) covered by Bond No.: WY 2793

FEE WELLS - BOND VERIFICATION/LEASE INTEREST OWNER NOTIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond No: N/A
2. The **FORMER** operator has requested a release of liability from their bond on: N/A
The Division sent response by letter on: N/A
3. (R649-2-10) The **FORMER** operator of the Fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: _____

FILMING:

1. All attachments to this form have been **MICROFILMED** on: _____

FILING:

1. **ORIGINALS/COPIES** of all attachments pertaining to each individual well have been filled in each well file on: _____

COMMENTS: Master list of all wells involved in operator change from Coastal Oil & Gas Corporation to El Paso Production Oil and Gas Company shall be retained in the "Operator Change File".

JAN. 17. 2003 3:34PM

PORT

NO. 173 P. 2

**WESTPORT OIL AND GAS COMPANY, L.P.**

410 Seventeenth Street #2300 Denver Colorado 80202-4436
Telephone: 303 573 5404 Fax: 303 573 5409

February 1, 2002

Department of the Interior
Bureau of Land Management
2850 Youngfield Street
Lakewood, CO 80215-7093
Attention: Ms. Martha Maxwell

RE: BLM Bond CO-1203
BLM Nationwide Bond 158626364
Surety - Continental Casualty Company
Belco Energy Corporation merger into Westport Oil and Gas Company, Inc.
Conversion of Westport Oil and Gas Company, Inc., into Westport Oil and Gas Company, L.P.
Assumption Rider - Westport Oil and Gas Company, L.P.

Dear Ms. Maxwell:

Pursuant to our recent conversations, please find the following list of enclosures for the BLM's consideration and approval:

Two (2) Assumption Riders, fully executed originals.
Copies of Belco Energy Corporation merger into Westport Oil and Gas Company, Inc.
Copies of Westport Oil and Gas Company, Inc., conversion into Westport Oil and Gas Company, L.P.
List of all Federal/BIA/State Leases - Belco/Westport's leases - in all states.

Please inform us of any additional information needed to complete the change to Westport Oil and Gas Company, L.P., as operator of record.

I thank you for your assistance and cooperation in this matter. Please do not hesitate contacting the undersigned, should a question arise.

Sincerely,
Westport Oil and Gas Company, L.P.

Debby J. Black
Engineer Technician

Encl:



United States Department of the Interior **RECEIVED**

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

FEB 22 2002

DIVISION OF
OIL, GAS AND MINING

In Reply Refer To:

3106

UTU-25566 et al

(UT-924)

FEB 21 2002

NOTICE

Westport Oil and Gas Company L.P. : Oil and Gas
410 Seventeenth Street, #2300 :
Denver Colorado 80215-7093 :

Name Change Recognized

Acceptable evidence has been received in this office concerning the name change of Westport Oil and Gas Company, Inc. into Westport Oil and Gas Company, L.P. with Westport Oil and Gas Company, L.P. being the surviving entity.

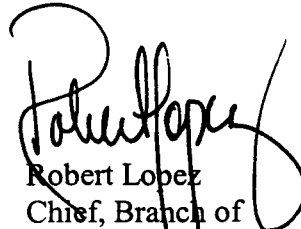
For our purposes, the name change is recognized effective December 31, 2001.

The oil and gas lease files identified have been noted as to the name change. The exhibit was compiled from a list of leases obtained from our computer program. We have not abstracted the lease files to determine if the entities affected by this name change hold an interest in the leases identified nor have we attempted to identify leases where the entities are the operator on the ground maintaining no vested recorded title or operating rights interests. We will be notifying the Minerals Management Service and all applicable Bureau of Land Management offices of the change by a copy of this notice. If additional documentation for changes of operator are required by our Field Offices, you will be contacted by them.

If you identify additional leases in which the entities maintain an interest, please contact this office and we will appropriately document those files with a copy of this Notice.

Due to the name change, the name of the principal/obligor on the bond is required to be changed from Westport Oil and Gas Company, Inc. to Westport Oil and Gas Company, L.P.. You may accomplish this either by consent of surety rider on the original bond or a rider to the original bond. The bonds are held in Colorado.

UTU-03405
UTU-20895
UTU-25566
UTU-43156
UTU-49518
UTU-49519
UTU-49522
UTU-49523



Robert Lopez
Chief, Branch of
Minerals Adjudication

cc: Moab Field Office
Vernal Field Office
MMS, Reference Data Branch, MS3130, PO Box 5860, Denver CO 80217
State of Utah, DOGM, Attn: Jim Thompson (Ste. 1210), Box 145801, SLC UT 84114
Teresa Thompson (UT-922)
Joe Incardine (UT-921)

UNITED STATES GOVERNMENT

memorandum

Branch of Real Estate Services
Uintah & Ouray Agency

Date: 5 December, 2002

Reply to
Attn of: Supervisory Petroleum Engineer

Subject: Modification of Utah Division of Oil, Gas and Mining Regulations

To: Director, Utah Division of Oil, Gas and Mining Division: John Baza

We have been advised of changes occurring with the operation of your database for Change of Operator. You will be modifying your records to reflect Change of Operator once you have received all necessary documentation from the companies involved, and perhaps in advance of our Notice of Concurrence/Approval of Change of Operator where Indian leases are involved.

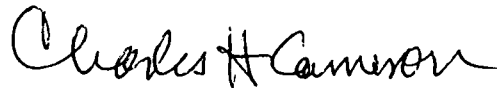
We have no objection.

With further comment to Rulemaking, I wish to comment concerning the provision of Exhibits for upcoming Hearings. I would like to see the Uintah & Ouray Agency, BIA, and the Ute Indian Tribe, Energy & Mineral Resources Department added to the list of those parties that receive advance Exhibits so as to allow us to have research time prior to Hearing dates. We will be able to provide a more informed recommendation to the Oil, Gas and Mining Board. It would be best if we would receive only those Exhibits that concern Indian lands, specifically on or adjacent to Indian lands. This may be a difficult situation to attain, as it is not always clear where 'on or adjacent' occurs.

I am aware that you have gone to extra effort to correct this matter already, and I fully appreciate it. My request is intended only to allow the addition of Uintah & Ouray Agency and Ute Indian Tribe to the official listing.

We appreciate your concern, and hope that these comments are timely enough for consideration in the revision process.

CC: Minerals & Mining Section of RES
Ute Energy & Mineral Resources Department: Executive Director
chrono





United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

Washington, D.C. 20240

FEB 10 2003

IN REPLY REFER TO:

Real Estate Services

Carroll A. Wilson
Principal Landman
Westport Oil and Gas Company, L.P.
1368 South 1200 East
Vernal, Utah 84078

Dear Mr. Wilson:

This is in response to your request for approval of RLI Insurance Company's Nationwide Oil and Gas Lease Bond No. RLB0005239 executed effective December 17, 2002, (\$150,000 coverage) with Westport Oil and Gas Company, L. P., as principal.

This bond is hereby approved as of the date of this correspondence and will be retained in the Bureau of Indian Affairs' Division of Real Estate Services, 1849 C Street, NW, MS-4512-MIB, Washington, D.C. 20240. All Bureau oil and gas regional offices and the surety are being informed of this action.

In cases where you have existing individual and/or collective bonds on file with one or more of our regional offices, you may now request those offices, directly, to terminate in lieu of coverage under this Nationwide Bond.

Enclosed is a copy of the approved bond for your files. If we may be of further assistance in this matter, please advise.

Sincerely,

Director, Office of Trust Responsibilities

ACTING

Enclosure



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

IN REPLY REFER TO
UT-922

February 27, 2003

Westport Oil and Gas Company, L.P.
Attn: Gary D. Williamson
1670 Broadway, Suite 2800
Denver, Colorado 80202

Re: Natural Buttes Unit
Uintah County, Utah

Gentlemen:

On February 27, 2003, we received an indenture dated December 17, 2002, whereby El Paso Production Oil & Gas Company resigned as Unit Operator and Westport Oil and Gas Company, L.P., was designated as Successor Unit Operator for the Natural Buttes Unit, Uintah County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective February 27, 2003. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under the Natural Buttes Unit Agreement.

Your nationwide (Colorado) oil and gas bond No. 1203 will be used to cover all operations within the Natural Buttes Unit.

It is requested that you notify all interested parties of the change in unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ Robert A. Henricks

Robert A. Henricks
Chief, Branch of Fluid Minerals

Enclosure

bcc: Field Manager - Vernal (w/enclosure)
SITLA
Division of Oil, Gas & Mining
Minerals Adjudication Group
File - Natural Buttes Unit (w/enclosure)
Agr. Sec. Chron
Fluid Chron

UT922:TAThompson:tt:02/27/2003

RECEIVED

FEB 28 2003

DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL

OIL WELL ☐

GAS WELL ☐

OTHER _____

8. WELL NAME and NUMBER:

Exhibit "A"

2. NAME OF OPERATOR:

El Paso Production Oil & Gas Company

9. API NUMBER:

3. ADDRESS OF OPERATOR:

9 Greenway Plaza

Houston

STATE TX

77064-0995

PHONE NUMBER:

(832) 676-5933

10. FIELD AND POOL, OR WILDCAT:

4. LOCATION OF WELL

FOOTAGES AT SURFACE:

COUNTY:

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE:

UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION

☐ NOTICE OF INTENT
(Submit in Duplicate)

Approximate date work will start:

☐ SUBSEQUENT REPORT
(Submit Original Form Only)

Date of work completion:

☐ ACIDIZE

☐ ALTER CASING

☐ CASING REPAIR

☐ CHANGE TO PREVIOUS PLANS

☐ CHANGE TUBING

☐ CHANGE WELL NAME

☐ CHANGE WELL STATUS

☐ COMMINGLE PRODUCING FORMATIONS

☐ CONVERT WELL TYPE

☐ DEEPEN

☐ FRACTURE TREAT

☐ NEW CONSTRUCTION

☒ OPERATOR CHANGE

☐ PLUG AND ABANDON

☐ PLUG BACK

☐ PRODUCTION (START/RESUME)

☐ RECLAMATION OF WELL SITE

☐ RECOMPLETE - DIFFERENT FORMATION

☐ REPERFORATE CURRENT FORMATION

☐ SIDETRACK TO REPAIR WELL

☐ TEMPORARILY ABANDON

☐ TUBING REPAIR

☐ VENT OR FLARE

☐ WATER DISPOSAL

☐ WATER SHUT-OFF

☐ OTHER: _____

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Operator change to Westport Oil and Gas Company, L.P., 1670 Broadway, Suite 2800, Denver, CO. 80202-4800, effective December 17, 2002.

BOND # _____

State Surety Bond No. RLB0005236
Fee Bond No. RLB0005238

EL PASO PRODUCTION OIL & GAS COMPANY

By: _____

Jon R. Nelsen, Attorney-in-Fact

RECEIVED

FEB 28 2003

DIV. OF OIL, GAS & MINING

WESTPORT OIL AND GAS COMPANY, L.P.

NAME (PLEASE PRINT) David R. Dix

TITLE Agent and Attorney-in-Fact

SIGNATURE _____

DATE

12/17/02

(This space for State use only)

Form 3160-5
(August 1999)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

*Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.*FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

5. Lease Serial No.

SEE ATTACHED EXHIBIT "A"

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

SEE ATTACHED EXHIBIT "A"

9. API Well No.

SEE ATTACHED EXHIBIT "A"

10. Field and Pool, or Exploratory Area

11. County or Parish, State

UINTAH COUNTY, UT

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

WESTPORT OIL & GAS COMPANY, L.P.

3a. Address

P.O. BOX 1148 VERNAL, UT 84078

3b. Phone No. (include area code)

(435) 781-7023

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SEE ATTACHED EXHIBIT "A"

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	SUCCESSOR OF
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	OPERATOR

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompletes horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed when testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator determined that the site is ready for final inspection.

WESTPORT OIL & GAS COMPANY, L.P., IS CONSIDERED TO BE THE OPERATOR ON THE ATTACHED DESCRIBED LANDS AND IS RESPONSIBLE UNDER THE TERMS AND CONDITIONS OF THE LEASE FOR THE OPERATIONS CONDUCTED ON THE LEASED LANDS OR PORTIONS THEREOF, BOND COVERAGE FOR THIS WELL IS PROVIDED BY FEDERAL NATIONWIDE BOND NO. 158626364, EFFECTIVE FEBRUARY 1, 2002, AND BIA NATIONWIDE BOND NO. RLB0005239, EFFECTIVE FEBRUARY 10, 2003.

RECEIVED

MAR 04 2003

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

CHERYL CAMERON

Title

OPERATIONS

Signature

Date

March 4, 2003

THIS SPACE FOR FEDERAL OR STATE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

OPERATOR CHANGE WORKSHEET

ROUTING

1. GLH
2. CDW ✓
3. FILE

X Change of Operator (Well Sold)

Designation of Agent/Operator

Operator Name Change

Merger

The operator of the well(s) listed below has changed, effective: **12-17-02**

FROM: (Old Operator):	TO: (New Operator):
EL PASO PRODUCTION OIL & GAS COMPANY	WESTPORT OIL & GAS COMPANY LP
Address: 9 GREENWAY PLAZA	Address: P O BOX 1148
HOUSTON, TX 77064-0995	VERNAL, UT 84078
Phone: 1-(832)-676-5933	Phone: 1-(435)-781-7023
Account No. N1845	Account No. N2115

CA No.

Unit:

NATURAL BUTTES

WELL(S)

NAME	SEC TWN RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
NBU 344	08-10S-22E	43-047-34021	2900	FEDERAL	GW	P
CIGE 268	08-10S-22E	43-047-34412	2900	FEDERAL	GW	P
NBU CIGE 15-8-10-22	08-10S-22E	43-047-30490	2900	FEDERAL	GW	PA
CIGE 249	08-10S-22E	43-047-34023	99999	FEDERAL	GW	APD
NBU 291	09-10S-22E	43-047-32911	2900	FEDERAL	GW	P
NBU 292	09-10S-22E	43-047-33474	2900	FEDERAL	GW	P
UTE TRAIL U 83X-9H	09-10S-22E	43-047-15388	2900	FEDERAL	GW	P
NBU CIGE 14-9-10-22	09-10S-22E	43-047-30484	2900	FEDERAL	GW	S
NBU 152	09-10S-22E	43-047-31990	2900	FEDERAL	GW	P
NBU 151	09-10S-22E	43-047-31991	2900	FEDERAL	GW	P
NBU 150	09-10S-22E	43-047-31992	2900	FEDERAL	GW	S
NBU 204	09-10S-22E	43-047-32342	2900	FEDERAL	GW	P
NBU 205	09-10S-22E	43-047-32344	2900	FEDERAL	GW	PA
NBU 188	10-10S-22E	43-047-32234	2900	FEDERAL	GW	S
NBU 207	10-10S-22E	43-047-32329	2900	STATE	GW	P
NBU 210	10-10S-22E	43-047-32340	2900	FEDERAL	GW	P
NBU 206	10-10S-22E	43-047-32341	2900	FEDERAL	GW	P
NBU 231	10-10S-22E	43-047-32561	2900	FEDERAL	GW	P
NBU 117	10-10S-22E	43-047-31914	2900	FEDERAL	GW	P
NBU 142	10-10S-22E	43-047-32013	2900	FEDERAL	GW	P

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 02/28/2003
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 03/04/2003
3. The new company has been checked through the **Department of Commerce, Division of Corporations Database** on: 03/06/2003
4. Is the new operator registered in the State of Utah: YES Business Number: 1355743-0181
5. If **NO**, the operator was contacted on: _____

6. (R649-9-2) Waste Management Plan has been received on: IN PLACE

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM-12/31/2003 BIA-12/5/02

8. **Federal and Indian Units:**

The BLM or BIA has approved the successor of unit operator for wells listed on: 02/27/2003

9. **Federal and Indian Communization Agreements ("CA"):**

The BLM or BIA has approved the operator for all wells listed within a CA on: N/A

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, Transfer of Authority to Inject, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A

DATA ENTRY:

1. Changes entered in the Oil and Gas Database on: 03/24/2003

2. Changes have been entered on the Monthly Operator Change Spread Sheet on: 03/24/2003

3. Bond information entered in RBDMS on: N/A

4. Fee wells attached to bond in RBDMS on: N/A

STATE WELL(S) BOND VERIFICATION:

1. State well(s) covered by Bond Number: RLB 0005236

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: 158626364

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: RLB 0005239

FEE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The NEW operator of any fee well(s) listed covered by Bond Number RLB 0005238

2. The FORMER operator has requested a release of liability from their bond on: N/A
The Division sent response by letter on: N/A

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The FORMER operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS:

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

ROUTING

1. DJJ

2. CDW

X Change of Operator (Well Sold)

Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective:

1/6/2006

FROM: (Old Operator):

N2115-Westport Oil & Gas Co., LP
 1368 South 1200 East
 Vernal, UT 84078
 Phone: 1-(435) 781-7024

TO: (New Operator):

N2995-Kerr-McGee Oil & Gas Onshore, LP
 1368 South 1200 East
 Vernal, UT 84078
 Phone: 1-(435) 781-7024

CA No.		Unit:		NATURAL BUTTES UNIT				
WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 5/10/2006
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 5/10/2006
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 3/7/2006
- a. Is the new operator registered in the State of Utah: YES Business Number: 1355743-0181
- b. If **NO**, the operator was contacted on: _____
- 5a. (R649-9-2)Waste Management Plan has been received on: IN PLACE
- 5b. Inspections of LA PA state/fee well sites complete on: n/a 3 LA wells & all PA wells transferred
- 5c. Reports current for Production/Disposition & Sundries on: ok
- 6. Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 3/27/2006 BIA not yet
- 7. Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: 3/27/2006
- 8. Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a
- 9. Underground Injection Control ("UIC")** The Division has approved UIC Form 5, Transfer of Authority to Inject, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: _____

DATA ENTRY:

- Changes entered in the **Oil and Gas Database** on: 5/15/2006
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 5/15/2006
- Bond information entered in RBDMS on: 5/15/2006
- Fee/State wells attached to bond in RBDMS on: 5/16/2006
- Injection Projects to new operator in RBDMS on: _____
- Receipt of Acceptance of Drilling Procedures for APD/New on: n/a Name Change Only

BOND VERIFICATION:

- Federal well(s) covered by Bond Number: CO1203
- Indian well(s) covered by Bond Number: RLB0005239
- (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number RLB0005236
- a. The **FORMER** operator has requested a release of liability from their bond on: n/a rider added KMG
The Division sent response by letter on: _____

LEASE INTEREST OWNER NOTIFICATION:

- (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: 5/16/2006

COMMENTS:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

KERR-McGEE OIL & GAS ONSHORE LP

3a. Address

1368 SOUTH 1200 EAST VERNAL, UT 84078

3b. Phone No. (include area code)

(435) 781-7024

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SEE ATTACHED

5. Lease Serial No.

MULTIPLE LEASES

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

MUTIPLE WELLS

9. API Well No.

10. Field and Pool, or Exploratory Area

11. County or Parish, State

UINTAH COUNTY, UTAH

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent

☒ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☐ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☐ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☒ Other **CHANGE OF OPERATOR**

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.

PLEASE BE ADVISED THAT KERR-McGEE OIL & GAS ONSHORE LP, IS CONSIDERED TO BE THE OPERATOR OF THE ATTACHED WELL LOCATIONS. EFFECTIVE JANUARY 6, 2006.

KERR-McGEE OIL & GAS ONSHORE LP, IS RESPONSIBLE UNDER TERMS AND CONDITIONS OF THE LEASE(S) FOR THE OPERATIONS CONDUCTED UPON LEASE LANDS. BOND COVERAGE IS PROVIDED BY STATE OF UTAH NATIONWIDE BOND NO. RLB0005237.

RECEIVED

MAY 10 2006

DIV. OF OIL, GAS & MINING

BLM BOND = C01203

BIA BOND = RLB0005237

APPROVED 5/16/06

Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

RANDY BAYNE

Title

DRILLING MANAGER

Signature

Date

May 9, 2006

THIS SPACE FOR FEDERAL OR STATE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

5. Lease Serial No.

MULTIPLE LEASES

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

MUTIPLE WELLS

9. API Well No.

10. Field and Pool, or Exploratory Area

11. County or Parish, State

UINTAH COUNTY, UTAH

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

WESTPORT OIL & GAS COMPANY L.P.

3a. Address

1368 SOUTH 1200 EAST VERNAL, UT 84078

3b. Phone No. (include area code)

(435) 781-7024

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SEE ATTACHED

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other CHANGE OF OPERATOR
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.

EFFECTIVE JANUARY 6, 2006, WESTPORT OIL & GAS COMPANY L.P., HAS RELINQUISHED THE OPERATORSHIP OF THE ATTACHED WELL LOCATIONS TO KERR-McGEE OIL & GAS ONSHORE LP.

APPROVED 5/16/06
Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

RECEIVED
MAY 10 2006

DIV OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

BRAD LANEY

Signature

Title

ENGINEERING SPECIALIST

Date

May 9, 2006

THIS SPACE FOR FEDERAL OR STATE USE

Approved by

Brad Laney

Title

Office

Date

5-9-06

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Colorado State Office
2850 Youngfield Street
Lakewood, Colorado 80215-7076

IN REPLY REFER TO:

CO922 (MM)
3106
COC017387 et. al.

March 23, 2006

NOTICE

Kerr-McGee Oil & Gas Onshore L.P. :
1999 Broadway, Suite 3700 : Oil & Gas
Denver, CO 80202 :

Merger/Name Change - Recognized

On February 28, 2006 this office received acceptable evidence of the following mergers and name conversion:

Kerr-McGee Oil & Gas Onshore L.P., a Delaware Limited Partnership, and Kerr-McGee Oil & Gas Onshore LLC, a Delaware Limited Partnership merger with and into Westport Oil and Gas Company L.P., a Delaware Limited Partnership, and subsequent Westport Oil & Gas Company L.P. name conversion to Kerr-McGee Oil & Gas Onshore L.P.

For our purposes the merger and name conversion was effective January 4, 2006, the date the Secretary of State of Delaware authenticated the mergers and name conversion.

Kerr-McGee Oil & Gas Onshore L.P. provided a list of oil and gas leases held by the merging parties with the request that the Bureau of Land Management change all their lease records from the named entities to the new entity, Kerr-McGee Oil & Gas Onshore L.P. In response to this request each state is asked to retrieve their own list of leases in the names of these entities from the Bureau of Land Management's (BLM) automated LR2000 data base.

The oil and gas lease files identified on the list provided by Kerr-McGee Oil & Gas Onshore L.P. have been updated as to the merger and name conversion. We have not abstracted the lease files to determine if the entities affected by the acceptance of these documents holds an interest in the lease, nor have we attempt to identify leases where the entity is the operator on the ground that maintains vested record title or operating rights interests. If additional documentation, for change of operator, is required you will be contacted directly by the appropriate Field Office. The Mineral Management Services (MMS) and other applicable BLM offices were notified of the merger with a copy of this notice

Please contact this office if you identify additional leases where the merging party maintains an interest, under our jurisdiction, and we will document the case files with a copy of this notice. If the leases are under the jurisdiction of another State Office that information will be forwarded to them for their action.

Three riders accompanied the merger/name conversion documents which will add Kerr-McGee Oil and Gas Onshore LLC as a principal to the 3 Kerr-McGee bonds maintained by the Wyoming State Office. These riders will be forward to them for their acceptance.

The Nationwide Oil & Gas Continental Casualty Company Bond #158626364 (BLM Bond #CO1203), maintained by the Colorado State Office, will remain in full force and effect until an assumption rider is accepted by the Wyoming State Office that conditions their Nationwide Safeco bond to accept all outstanding liability on the oil and gas leases attached to the Colorado bond.

If you have questions about this action you may call me at 303.239.3768.

/s/Martha L. Maxwell
Martha L. Maxwell
Land Law Examiner
Fluid Minerals Adjudication

Attachment:

List of OG Leases to each of the following offices:

MMS MRM, MS 357B-1

WY, UT, NM/OK/TX, MT/ND, WY State Offices

CO Field Offices

Wyoming State Office

Rider #1 to Bond WY2357

Rider #2 to Bond WY1865

Rider #3 to Bond WY1127



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
<http://www.blm.gov>



IN REPLY REFER TO:
3106
(UT-922)

March 27, 2006

Memorandum

To: Vernal Field Office

From: Chief, Branch of Fluid Minerals

Subject: Merger Approval

Attached is an approved copy of the merger recognized by the Bureau of Land Management, Colorado State Office. We have updated our records to reflect the merger from Westport Oil and Gas Company L.P. into Kerr-McGee Onshore Oil and Gas Company. The merger was approved effective January 4, 2006.

Chief, Branch of
Fluid Minerals

Enclosure

Approval letter from BLM COSO (2 pp)

cc: MMS, Reference Data Branch, James Sykes, PO Box 25165, Denver CO 80225
State of Utah, DOGM, Attn: Earlene Russell, PO Box 145801, SLC UT 84114
Teresa Thompson
Joe Incardine
Connie Seare
Dave Mascarenas
Susan Bauman

RECEIVED

MAR 28 2006

DIV. OF OIL, GAS & MIN. RES.